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A heart that pumps the lifeblood of America
—speeding 120,000 tons of the nation's products every day
HOW would you like the job of sorting 6,000 freight cars a day—taking trains apart as they flow in from the east and west and south and north—putting them back together again in new combinations, so the cargo they carry can roll on its way to mill and market?
That's what happens in the maze of railroad tracks you see pictured here. And this is only one of several yards serving Chicago which handle a total of 30,000 cars every day.
Strings of cars roll in on the tracks in the foreground. Car by car, each train is split among some three dozen tracks in the distance, with such speed and accuracy that one car can be handled every 20 seconds.
These tracks can be filled and cleared in two hours—in one of those miracles of transportation so smoothly done by the American railroads that the public takes them for granted. And what takes place here goes on, day and night, in thousands of railroad yards all over the country.
with such speed and efficiency that they deliver to the American public what is literally the finest job of low-cost mass transportation in the world.
And mass transportation is modern transportation—the only kind of transportation which makes possible our modern world of mass production and mass distribution of the things which the American people need and enjoy.
What's more, this modern mass transportation by railroads shows steady progress year by year.
As everyone knows, passenger traffic is faster. And freight has been speeded up as well. Between many important commercial centers as much as 500 miles apart, the railroads now give overnight freight service. Four days have been cut from the running time coast to coast.
All that the railroads need, as far as government transportation policies are concerned, is *a fair chance to earn a living*—with no favor either for themselves or for their competitors.
The Transportation Act of 1939 (S2009), recently passed by a vote of 70 to 6 in the U. S. Senate, is a step in this direction. Similar action should be taken by the House of Representatives.
For better times—support your representatives in Congress and the state legislatures in every effort to establish A SQUARE DEAL IN TRANSPORTATION.
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10

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RAILWAY AGE

The Management of a Great Industry

This paper presented evidence in an editorial last week that the last five years' management of the railroad *industry* has been a failure. The evidence presented was that in the first half of 1939, as compared with the first half of 1934, gross earnings increased 11 per cent, or 175 million dollars, but that, in spite of this, net earnings declined 27 per cent, or 62 million dollars, principally because operating expenses (including rentals) increased 15 per cent, or 191 million dollars. Taxes also increased 36 per cent, or 46 million dollars.

Wherein do these figures show that management failed? What do they indicate management should have done or avoided—or that it should do or avoid in future? Those who should be, *and are,* most competent to answer these questions are the chief executives of the railways. If they could not answer them completely and perfectly, they could come nearer doing so than anybody else if they would get and stay together long enough to make the necessary exchanges of information, views and arguments and arrive at the conclusions thereby suggested. But any intelligent person who has constantly followed the developments that have occurred can, to his own satisfaction at least, indicate some important things which have been done that should not have been done and others that have not been done which should have been done—and which should still be done. And it is much less the job of management to show that criticisms of its failures made by outsiders are ill-founded than it is to adopt and carry out policies that will lead to success.

After all, an increase of 11 per cent in gross earnings is relatively large; and when it has been accompanied by a reduction of 27 per cent in net earnings management should not be surprised if questions are raised as to whether the policies and methods leading to such results are defensible. Surely with such a showing confronting it management itself should be doing a lot more head-scratching and heart-searching than it apparently is.

Management and High Labor Costs

The increase of operating expenses (excluding rentals) was 188 million dollars, or 13 million dollars more than the increase in gross earnings, although the increase in traffic handled was small. The increase in wages paid for the same amount of work was 146 million dollars. Of this, part was chargeable to capital expenditures, but at least 141 million dollars was chargeable to operation. Consequently about *75 per cent* of the increase in operating expenses was due to *advances in basic wages.* These consisted of rescinding of the 10 per cent deduction from basic wages originally made in 1932 and of the advances over the pre-depression bases made in 1937.

Were all these increases of wages made because it was the considered opinion of a majority of railway executives that it would be *good management* of the industry to make them? There was an understanding that after the wage settlements in 1937 negotiations would be started on behalf of the railways for extensive changes in working rules; but this plan was abandoned. Was it the considered opinion of a majority of railway executives that its abandonment was *good management?* The answer to both questions is an emphatic "no." Why, then, have labor costs due both to basic wages and working rules been put and kept so much higher than economically justifiable by railway earnings under depression conditions?

Playing Politics—the Other Fellow's Game

Almost throughout its history the Roosevelt administration has inspired fear in the management of many industries. It has inspired both fear and hope in the railroad industry—fear that it would "crack down" if railroad management did not do exactly what it demanded; hope that it would do much for the industry if management would comply with its demands. Most railway executives believed traffic and earnings had recovered too little to justify rescinding of the 10 per cent deduction from basic wages, beginning on July 1, 1934, but because of the attitude of the Roosevelt administration considered it advisable. The advances of wages made in 1937—especially those of train and enginemen—and the withdrawal of the wage reduction notices in 1938 were due almost entirely to pressure and promises from the administration and the railway labor unions.

It is now over four years since rescinding of the 10 per cent deduction was consummated. It is two years since the wage advances in 1937 were made. It is nine months since withdrawal of the notices of the 15 per cent wage reduction. And just how much have the railroads got in return meantime from the administration? Not a thing that has been worth a nickel to them—as shown by the 27 per cent decline in their

net earnings. President Roosevelt has even vetoed the so-called "bridge" bill, the only measure passed by Congress on recommendation of the Committee of Six —although it has repeatedly been stated positively by members of the Committee of Six that he expressly promised to support any legislation on which its members agreed!

The advances in wages made by the management of the railway industry because of fears and hopes inspired principally by the administration, but also partly by threats and promises of labor leaders, are costing the industry at least 300 million dollars a year. How much worse off would it or could it have been if its management had refused to yield to the blandishments and threats of the administration and organized labor until they had actually secured for the railroads, in legislation and otherwise, the equivalent of what they were demanding from them?

It is never safe to try to beat an expert at his own game; and railroad management has thus far been a heavy loser in its efforts to play politics with the Roosevelt administration and organized labor. Management had acquired in the latter part of 1938 the legal power to make a wage reduction of 250 million dollars annually. Was it *good management* simply to discard that power instead of using it to the utmost for trading purposes?

Concerning Public Relations Work

Public relations activities are usually carried on to create a friendly public sentiment. But experience long since showed, and year by year has shown more conclusively, that a merely friendly public sentiment is of no value if it is also *indifferent and inert*. A friendly sentiment to be worth anything to you must inspire your friends to action in your behalf; and mighty few people will exert themselves for you unless convinced it is to their *own selfish interest* to do so. And here is where railroad public relations work has bogged down. The time long since came when the railroads began to need not only a cessation of legislation injuring them but the passage of legislation to help them by equalizing the conditions under which they must compete with other carriers.

A merely friendly but inert public sentiment will never help get such action. There must be created a sentiment not only that the passage of such legislation is needed by the railroads, but that it will be in the selfish interest of various pressure groups. One pressure group with political influence now working for it for its own selfish reasons is organized railway labor. But there is just as much reason why various groups of large business interests, small business interests and farmers should also, in their own selfish interest, be working for it. It has not been passed by Congress and the state legislatures over the opposition of Big Business interests, such as are represented by the Mississippi Valley Association and the Motor Highway Users Conference, because the wholly selfish and unprincipled opposition of these socialistic Big Business interests has not been fully offset by the support of such legislation by other business and agricultural groups convinced that it is to their selfish interest to support it.

Railway public relations work, to be effective, must create not merely a friendly sentiment, but a selfish and militant sentiment among business men and farmers being injured along with the railways by present government policies; and as yet hardly a start has been made in doing this. It is clearly an important part of management of the railroad industry to see that public relations activities are intelligently and effectively carried on.

Legislative Activities with Few Results

In the industry as a whole, and on individual railroads, public relations and legislative activities usually have been sharply separated. The former usually are carried on by specialists devoting themselves exclusively to creating a favorable public sentiment. The latter usually are carried on by the law departments. Neither is supposed to participate in or interfere with the activities of the other.

Those doing legislative work usually have much more influence with management than those doing public relations work; but on the record, this is difficult to understand. For the record shows that for many years the railways were notably unsuccessful in preventing federal and state legislation injurious to them; and that within recent years they have been as notably unsuccessful in getting legislation either to repeal already existing harmful legislation or to improve their competitive opportunities. To what has this been due? Obviously to failure to enlist enough active public sentiment in behalf of what the railways have needed. This suggests much more than a possibility that one of the things the matter has been that railroad management has not recognized enough the necessity of coordinating as well as improving its public relations and legislative activities. At any rate, its prolonged record of failing to get needed legislation the fairness of which has been easily demonstrable certainly suggests that management should go thoroughly into the question of what is the matter with its legislative activities.

Five Years of Failure Suggests New Methods

It is the function of railway chief executives, not that of outsiders who have not assumed their responsibilities, to manage the railroad industry—not merely to manage it, however, but to *manage it as successfully as conditions make possible*. This clearly includes thorough study by management of all the reasons why an increase of 11 per cent in gross earnings within five years has been accompanied by a decline of 27 per cent in net earnings—although even five years ago net

earnings were disastrously and almost unprecedentedly small. With its greater knowledge of the industry and its greater duty and responsibility management may be, and probably will be, justified in repudiating the explanations of outsiders regarding why this bad record has been made and their suggestions for improving it.

But railway management is not alone affected when the railroad industry, in spite of an 11 per cent increase of gross earnings, suffers a 27 per cent decline of net earnings. Every railway security owner and the entire public are thereby injured. Therefore, we maintain the time has come when management should decide thoroughly to study what have been the real reasons for the industry's retrogression within the last five years;

What Will the Traffic Bear?—27

The creation of a special committee by the Association of American Railroads to revise the Consolidated Freight Classification, and other action intended to modernize the railroad rate structure, standing alone, would indicate a realization by the carriers that they must revise their historic rate structure to meet modern conditions. But there are plenty of cross-purposes and contradictions in railroading, as this case amply demonstrates.

Just consider in this connection the action of the Joint Committee of Rail and Highway Common

Carriers on Rate Stabilization Within the State of Pennsylvania, organized with the approval of the Pennsylvania Public Utility Commission. An Interstate Commerce Commission representative has also been present as an observer. This committee stated in its report to the Pennsylvania Commission, "That the public interest will be best promoted if there is uniformity of rates for both truck and rail transportation."

The report concludes that truck-railroad uniformity should be obtained through the present antiquated railroad classification and rates, under which the railroads are losing a billion dollars annual revenue to the trucks.

Another example, indicating that **the railroads are not pulling together for a modern rate structure,** is provided in the 20th petition of the Central States Motor Freight Bureau, Inc., in Docket M. C. 21, which seeks to withdraw certain truck rates and arbitrarily establish the historic rail rates for trucks, in disregard of the fact that rail and truck costs do not justify a common rate level. It is generally understood that this action has railroad sanction, despite the fact that the present railroad pricing enabled the trucks to increase their merchandise traffic 28.1 per cent in June, while railroad merchandise traffic increased only 4.12 per cent.

It is easy to understand why the trucks would be eager to enter into such agreements as those proposed in Pennsylvania and by the Central Motor Bureau, because these agreements would enable the trucks to hand-pick cream traffic. Why the railroads should thus favor their rivals and make it easy for them to divert traffic away from the rails remains a mystery.

As an indication of the truck attitude: A trucking company in the Middle West inadvertently permitted light-loading lamp chimneys to be included in an all-commodity hardware rate, but nearly suffered apoplexy when it was offered a truckload of lamp chimneys. Needless to say, the truck avoided hauling the chimneys—because **few if any trucking companies are in the general transportation business, but only in the pick-and-choose heavy-loading, high-rated transportation business.** Why should the railroads continue to encourage such hand-picking when rates based upon railroad costs will prevent it, and declare the trucks out of a very large part of the business they now move?

The I. C. C. has said in Docket 27387 that a transportation agency should not be permitted to make rates at less than cost in order to take traffic from a competitor. Trucks should not be immune to this rule—yet, so far, they are, aren't they? The commission has said in its announcements in Dockets 28300 and 28310 that railroad classifications and rates are to be investigated and such rates and classifications prescribed as may be found to be justified. Another investigation has been announced of truck *classifications only.*

Why should not the truck rates also be made the subject of a similar investigation? In particular, **why does not the I. C. C. look into the thousands of below-cost quantity and truck-load back-haul rates which the trucks are employing to fill out return loadings?** A large group of truck operators recently petitioned the I. C. C. to institute an inquiry into rail and water l. c. l. merchandise classifications and rates in certain parts of official territory, but the inquiry ought to go much further than that, and bring to light the sins of the truckers as well as those of their rivals.

what justification there has been for the management policies that have caused, or at least not prevented, this retrogression, and what changes in policies and organization should be made to substitute progress for retrogression. And we venture to suggest that the management of the industry will not solve its problems any better in future than it has been solving them during the last five years if it tries to do so by holding only an occasional meeting beginning at perhaps 10 a. m. and ending at 1 p. m. of the same day.

The Record of the Streamliners

On a following page the *Railway Age* records the details of the first serious accident to a high-speed streamliner train, an accident that, because of its heavy loss of life, ranks among the major railway wrecks of many years. And yet the facts available at this time indicate that it was not caused by any defect inherent in the equipment or track, or in the schedule on which the train was operating, but rather by vandals tampering with the track in a way that would have led to similar results with any other passenger train. This being the case, the streamliner was the victim rather than the cause of the disaster.

Yet the fact that this accident involved a streamliner directs attention to the truly remarkable record that the large and growing fleet of high-speed light-weight trains has already made and is adding to daily. Although the first of these trains was placed in regular operation less than five years ago, some 67 of them are now in daily service in all parts of the country and at least 20 more are under construction. The trains now in service have already operated several million miles and are adding to the total at the rate of nearly 50,000 miles daily. They are moving at schedules that were unthought of as recently as six years ago, with dependability and regularity that compare well with older schedules and equipment. And they are moving on tracks and structures that are essentially the same as those of a few years ago, except as to refinements in standards.

That they have been built and are operated in such numbers at such greatly increased speeds over so many different railways is a truly remarkable tribute to the care and foresight of American railway officers and of American railway equipment builders. That they have carried millions of passengers safely at markedly higher speeds contributes still further to the achievement. And the accident of this week is such as to cast no reflection on this record, but rather to call attention to it.

It is pertinent in this connection to mention that plans are already far advanced for presenting an extensive review of the history of these new light-weight streamlined trains, both collectively and individually, in the *Railway Age* of October 14. In this issue we plan to give their records in their various aspects in a way that will show their achievements in opening a new era in railway transportation.

Wages and Working Conditions Are Part of the Railroads' Competitive Handicaps

Assuming that ultimately appropriate legislation will be passed, a serious problem will continue for railroads and railroad men. It lies in the growing and continuing competition of other forms of transportation: waterways, highways, pipe lines and airways. Should the law provide for equal competitive opportunities and be correctly administered, it will then be a question of what place the railroads can maintain in the competitive picture. They will have to afford just as good and as economical service as their competitors, and the maintenance of their inherent or natural advantages will depend on the elimination from their operations of all unjustified or arbitrary methods or expenses, of whatever nature or sort. . . .

The question will be raised in any thoughtful mind whether railroads and railroad men will not have to face frankly and squarely the new competitive conditions and adapt their working arrangements, conditions and cost of service accordingly. If we acknowledge along with other industry that eight hours is a fair measure of a day's work, can our industry successfully compete with other forms of transportation working and paying on that or a longer base, while many of our employees are paid on the 8-hour or mileage basis, whichever is the best, and frequently draw their day's pay for work requiring much less than eight hours, with sometimes extra pay for arbitraries, all within the eight hour period?

Viewing the competitive conditions facing railroad men, is it wise to insist on standard wages regardless of the extent or conditions of service? Business on many branch lines and on many local trains is too thin to justify a standard of wages as high as on main lines or where traffic is dense. It therefore follows that service on the branch lines and local trains are discontinued, which might be continued if a lower cost of operation could be found. Men with no seniority elsewhere are permanently displaced. In the comparison of wages in 1926 and 1938 the average wage per employee had increased, yet many men have been forced permanently out of employment. Could a different policy, which would more nearly have adapted the wage to the work done, not have saved some jobs at rates satisfactory to the men now jobless and held business to the rails?

Again, railroad employees must recognize that while there is a fixed sum from which wages can be paid, it is quite evident that if some of the group get more than their share for the work done, other groups must be penalized and receive less. In the case of the branch line man where service has been abandoned, or those at the bottom of the seniority list, they have been sacrificed to maintain the better conditions for others having seniority.

The problem of railroad management and their employees to hold traffic and maintain employment is a very real one. It will require frank discussion and understanding, and cooperative, constructive effort to solve it.

From a message by President J. B. Hill of the L. & N. to employees of that company.

Making Tomorrow's R. R. Boosters

Are the railroads doing all they can to build respect for the industry in the minds of children—who will be tomorrow's shippers, passengers and voters?

By Page Nelson Price

Assistant Editor, N. & W. Magazine

The Norfolk & Western Is Sponsoring a Comprehensive Program to Awaken the Interest and Earn the Friendship of the Young People

THE future of the railroads depends upon the attitude of our children. Consider the fact that one-third of the population of the United States (or 42,000,000 persons) is of school age or younger. These children are the travelers and shippers of tomorrow. They are the citizens, the lawmakers, the public officials of tomorrow. What is done *today* to make young people aware of the railroads and their importance will determine the attitude of the country *tomorrow* toward the railroad industry.

Young minds can be aroused to explore the fascinating story of railroading on their own account. The drama of nation-building, in which the railroads played so important a part, appeals to youthful energies. Quickly do these young folks grasp the railroad facts when they are put before them. But are the railroads making the most of this opportunity to mold future public opinion? Are they doing all they can to build respect for the railroad industry in the minds of young people?

The Interest Already Exists—It Needs Only Be Fed

That some railroads are beginning to realize the importance of this vast audience of young people is evident. They have set out to tell their story by making railroading and railway travel attractive to boys and girls. The task is made infinitely easier because railroad operation holds a strong fascination for young and old alike. Children are definitely curious—they want to know how railroads are run, how tracks are built, how signals work, how trains are made up, what a locomotive looks like inside. This interest is attested by thousands of letters received by railway officers and employees, by the numerous transportation projects undertaken by schools on popular demand.

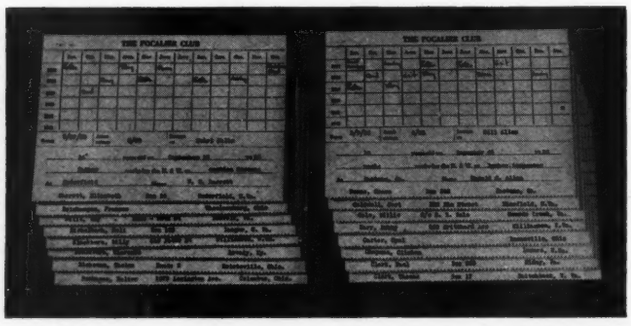
It is to the advantage of the railroads—with an eye to the future—to see that the questions of these young people are answered, that their curiosity is nourished with clear and definite information concerning the work of the railroads and the means by which that work is done. Those railroads which realize the potentialities of the youthful audience, have begun to take advantage of the opportunity it offers for public relations work. Railway publicity departments are distributing material prepared especially for children. They are co-operating with teachers and school libraries. Exhibits of freight and passenger equipment have been made available so that young people might visit them. Children are conducted through railroad shops. Grammar school, high school and college students are furnished with material

to aid them in preparing debates and essays and histories dealing specifically with the railroads. Booklets, maps, posters and photographs, illustrated lectures and movies are distributed to schools for use in preparing exhibits on railway transportation. Railroads which have undertaken to tell their story to young people have met with a response gratifying in its enthusiasm.

Logically, the place to begin such a program is at home—with the railroad children themselves, with the sons and daughters of railroad employees.

The N. & W. Has a Children's Club

Ten years ago this month the Norfolk & Western Railway took such a step. It began to build up a strong internal organization among its youngsters. This organization took the form of a club made up of children and relatives of Norfolk & Western employees. Today, with 5,000 members, this club represents a deliberate, purposeful organization with definite aims and developments. In 10 years it has grown into one of the most active clubs of railroad boys and girls in the United States. The Norfolk & Western considers the young people of its railway "family" a definite asset—along with its powerful locomotives, its air-conditioned



There Is a Separate Card Record of Each Member, Showing His Relationship to an N. & W. Employee

trains, its reputation for prompt and efficient transportation service.

What purpose does this group of boys and girls serve? How is the club organized and how does it function. What is its value to the railroad?

To answer the last question first, the Norfolk & Western looks upon these young people as a force in molding the attitude of future generations, in bringing about a new understanding of railroad problems. Through railroad children, thousands of other youngsters can be reached. Furthermore, each club member is a staunch friend of the railroad. He talks the advantage of rail travel over other modes of transportation. Often these children secure passenger business. Wherever a club member goes he wears his club badge with the N. & W. monogram prominently displayed, thus advertising the railroad and its service.

A children's club also offers an unexcelled medium for personnel work and employee training. Many of these boys and girls will make up the coming generation of employees. The boys will some day become engineers, machinists, gang foremen, or executives of the railway. The girls will take over the duties of running a home for a railroad man. By creating a feeling of loyalty and pride, much has been done in training these future employees in efficiency and service.

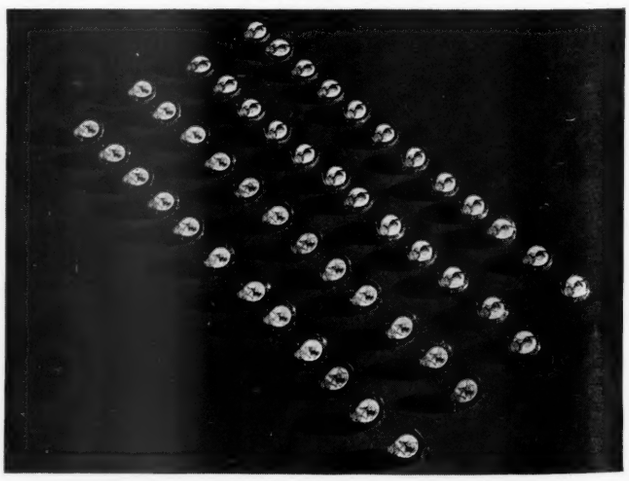
How is such a group of railroad children organized and how does it function?

The Postman Has Brought 50,000 Letters from N. & W. Youngsters

The employee magazine offers perhaps the best medium for organizing the group because the magazine reaches out into railroad homes and comes to the employee and his family with regularity. Through the magazine the activities of the young peoples' club are best conducted and the interest of the children is more constantly maintained. When the Norfolk & Western Magazine proposed the organization of a club for young people, the response was enthusiastic. Within a year, the membership had grown to more than a thousand. It continued to increase steadily throughout the 10 years, so that today there are included in its 5,000 members young people from every state covered by the system, from large cities and small towns and rural districts, from many states outside Norfolk & Western territory, and from off-line agency points. Any boy or girl between the ages of 6 and 18 years, who has a relative in Norfolk & Western service, is eligible for membership in the group. After 18, the young people "graduate" into an associate club where they may continue their club work.

Magazine Used as a Meeting Ground

On the Norfolk & Western the young people's organization is called "The Pocalier Club"—a composite word



Wherever a Club Member Goes His Lapel Button Publicizes the N. & W. and Identifies the Youngster With It

taken from the two words "Pocahontas" and "Cavalier," names of two of the railway's best-known passenger

trains. Focusing points for the Club activities is to be found in the "family" magazine. Two or three pages of each issue are given over to the dissemination of club news, to establishing contact between club members, and to the publication of stories, drawings, poems and letters written by the children. A member of the magazine staff serves as club editor, and is known to the children as Nell Norwest. Centralizing and directing the work, she brings the members together from widely separated localities. The relationship between club editor and club members is made as personal as possible through visits and through correspondence. In 10 years, more than 50,000 letters have poured into and out of the club editor's office. Birthday and Christmas cards are mailed to each member, and a detailed record of every boy and girl is kept by the editor.

In addition to promoting a spirit of loyalty to the railroad, and in cultivating friendships among the railroad children, the club gives members an opportunity for self-improvement and self-expression in the writing of stories, essays, poems, etc., many of which are published in the club section of the magazine each month. Attractive club badges worn by the members bear the Norfolk & Western monogram beneath a picture of Pocahontas for the girls, and a picture of a Cavalier for the boys.

Today 6,000 infants were born in the United States. This year 2,500,000 infants will be added to the ever-changing and ever-increasing "public" which the railroads will be called on to serve in a few more years. What an asset those children will be to the railroads a decade or two hence, if they grow up alert to the fascination of railroading and in knowledge and appreciation of railroad accomplishment!

Wendell Willkie's Magnificent Dramatization of Utilities' Plight

The intelligent and forthright president of the Commonwealth & Southern Corporation, Wendell Willkie, faced with tax-free and subsidized competition by T. V. A. with his company's properties in Tennessee, insisted that the government buy out these properties at somewhere near their fair value. He succeeded in this effort—to the extent of getting four-fifths of the value of these properties from the government as a purchase price. Title passed to T. V. A. at midnight, August 15, and on August 14 a full-page advertisement, signed by Mr. Willkie, appeared in Tennessee newspapers, under the arresting caption:

TONIGHT AT MIDNIGHT

We Hand Over Our Tennessee Electric Properties and a $2,800,000 Tax Problem

In this advertisement, Mr. Willkie bade farewell to the people of Tennessee—calling attention to the fact that the properties now going to the government would be non-tax-yielding, and the other taxpayers of the state would have to provide the $2,800,000 in annual taxes that his companies had been paying. Continuing, he said in part:

> We have had to sell our electric properties and turn over a splendid organization to the Tennessee Valley Authority and other governmental agencies because we could not stay in business and compete with virtually tax-free and heavily subsidized plants.
>
> We now turn over to government agencies, for about four-fifths of its real value, one of the finest public utility services in this or any other country . . . one representing private investments of about a hundred million dollars.
>
> Almost all the money we are receiving from this sale will be used to pay back the owners of the outstanding bonds and preferred stocks of The Tennessee Electric Power Company, at 100 cents on the dollar. A substantial percentage of these investors live in Tennessee. The common shareholders, principally The Commonwealth & Southern Corporation, are taking all of the loss.
>
> To buy our properties, the municipalities are selling bonds largely tax-free and T. V. A. is selling government obligations which, in addition, will be a lien upon the incomes of all of us. These tax-free municipal and federal securities will be owned largely outside Tennessee. As a result, much income which citizens of Tennessee received from our company will no longer benefit this community.
>
> The incomes from all Tennessee Electric Power securities have, of course, been subject to taxation and have long helped to carry the costs of government. Whenever government takes over a private business, not only does the public lose the benefit of taxes paid directly by the business but also the substantial taxes paid by the owners of its securities.
>
> To numerous friends and associates in Tennessee, many of whom have been most helpful and considerate, we are deeply indebted and very grateful. We wish them every success. Our hope is they will never be required to defend a business of their own against government subsidized competition.

All of which is as fine a job of dramatizing the plight of an industry under socialistic attack as history records. Yet the injustice and the folly of the government's assault on the utilities is almost an act of generosity, by comparison with its persistent socialistic undermining of the railroads. (After all, **the government charges something for the power it produces** in competition with the privately-owned utilities, **but it gives away the transportation its dams and locks provide**—in competition with transportation service that privately-owned railroads are trying to sell.)

The railroads constitute a Dreyfus case, while the utilities are, comparatively, only a man with an undeserved ticket for parking—yet this milder injustice has touched the sympathies of millions, while the vastly greater wrong goes unnoticed or unbelieved. Mr. Willkie, at the $75,000 a year he is reputed to receive, is a very great bargain for the security owners fortunate enough to have hired him.

Meeting th

*In Soledad Canyon, Looking East from Point "F", Within the First Week After the Flood of Early March, 1938, Showing Line Rehabilitation Already Well Under Way

WHEN storms and floods return to Southern California in the future, as records of the past indicate is inevitable, they will find the lines of the Southern Pacific in that area better fortified to resist their onslaught than they were in March, 1938, when the record-breaking floods early in that month brought disaster to many miles of this road through embankment washouts, slides, bridge failures, debris blockades and general inundation. Millions of dollars had already been spent by the Southern Pacific over the years in protecting its lines in this territory against the ever-present hazard of floods, but out of the further lessons learned from the unprecedented experience of the latest disaster, it has now expended another 2½ million dollars to rebuild or further strengthen many miles of its lines and numerous bridges to minimize the menace of flood waters.

The additional line strengthening and improvement work carried out has included line relocations to more stable or higher ground; various forms of embankment protection, including heavy rip-rapping, concrete bank revetments and jetties to deflect or retard stream flow, channel changes to direct menacing streams away from the tracks and to eliminate waterway openings; and the enlarging of many existing bridges and trestles, both vertically and laterally, by raising, extending or completely rebuilding them. From the standpoint of magnitude alone, the work that has been done is outstanding, but, beyond that, it is of special interest in many respects because of the methods or types of construction employed.

Difficult Problems in Soledad Canyon

The severity and extent of the storm in Southern California early in March, 1938, and what happened to the lines of the Southern Pacific in that territory are now history,** and will be referred to only as is necessary to indicate the purpose of the particular rehabilitation work done at various points. It should be recalled, however, that with a recorded five-day rainfall of 25 to 30 in. over the area affected, and peak flood stages and runoff in many rivers, streams and washes, the damage that ensued was unprecedented in the history of the Southern Pacific, affecting to varying degrees all of its many lines in lower California, including its three main lines extending from Los Angeles, eastward to El Paso, Tex., and westward† up the Coast line to San Francisco, and through the San Joaquin valley to Bakersfield and Oakland.

Of these main lines, the lower end of the San Joaquin Valley route for a distance of approximately 125 miles west of Saugus was the most severely damaged. In this territory, the line crosses the Tehachapi mountains,

* All photograph captions refer to the drawings on pages 282 and 283.

** *See Railway Age,* March 12, 1938, page 452.

† The directions given in this article are Southern Pacific timetable directions, which are in most instances practically opposite magnetic directions.

The Challenge of Floods in Southern California

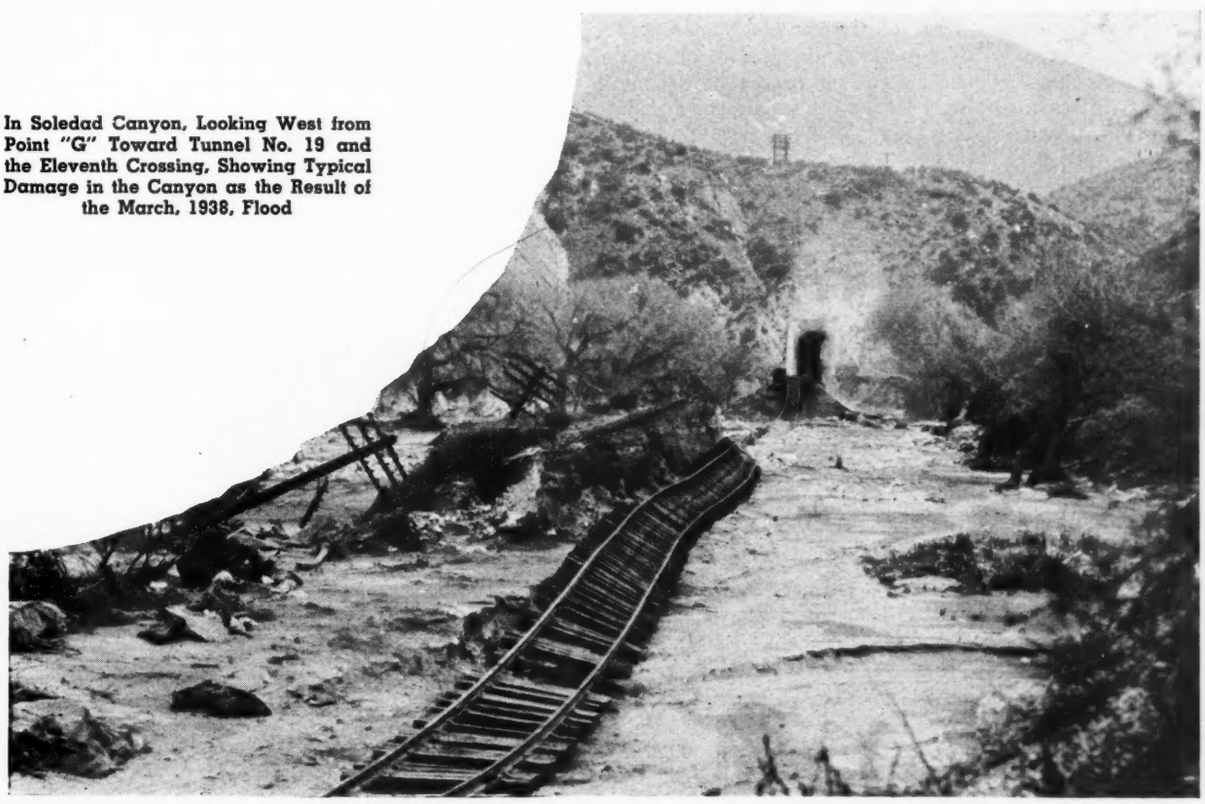
How the Southern Pacific has strengthened many miles of lines and rebuilt many structures in this territory to prevent the recurrence of the disaster of March, 1938

traversing the water shed of the Santa Clara river, and for several miles shares with the river the narrow winding floor of a precipitous canyon, known as Soledad canyon. Within this canyon between the stations of Russ and Lang, for a distance of about four miles, the winding single-track line of the railroad, hemmed in by steep mountain slopes, lay almost at the water level on low fills, and crossed the river 11 times.

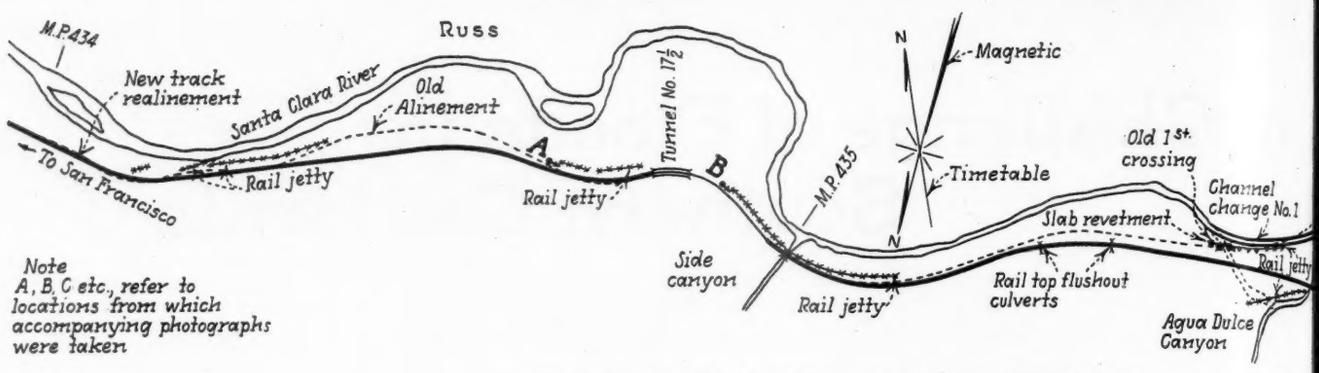
The Santa Clara river, which flows in a general westerly direction, toward the Pacific ocean, is normally a small mountain stream, but, fed by an extensive mountainous water shed with little vegetation, it is known to be one of the most ravaging of the many rivers in Southern California when at flood stage. While it has been a menace to the railroad line ever since this line was built in 1876, causing some damage almost yearly, its three previous most damaging flood stages were in 1884, 1890 and 1914. After each of these floods, work was undertaken to strengthen parts of the line, but it was recognized that much of the line was still in a precarious position, particularly through Soledad canyon, and only the extent of the work required and the great cost involved delayed the improvements that were known to be necessary to prevent further extensive damage in the event of a major flood. However, piecemeal improvements were being made from time to time, and, as a matter of fact, a sizable project of track raising and line revision within the canyon was well under way at the time the 1938 flood occurred.

11 Bridges Affected in 3 Miles

From records and observations, the flood in the Santa Clara river in 1938 was the most severe that has ever occurred. Supplementing the damage caused by the water itself, was that brought about by the vegetation, debris, logs and trees which were carried along by the flood waters from the water course, which had not been swept so thoroughly since the flood of 1914. While the damage to the line extended over a territory approxi-



In Soledad Canyon, Looking West from Point "G" Toward Tunnel No. 19 and the Eleventh Crossing, Showing Typical Damage in the Canyon as the Result of the March, 1938, Flood



Sketch Plan of a 4½-Mile Section of the Southern Pacific Main Line in Soledad Canyon

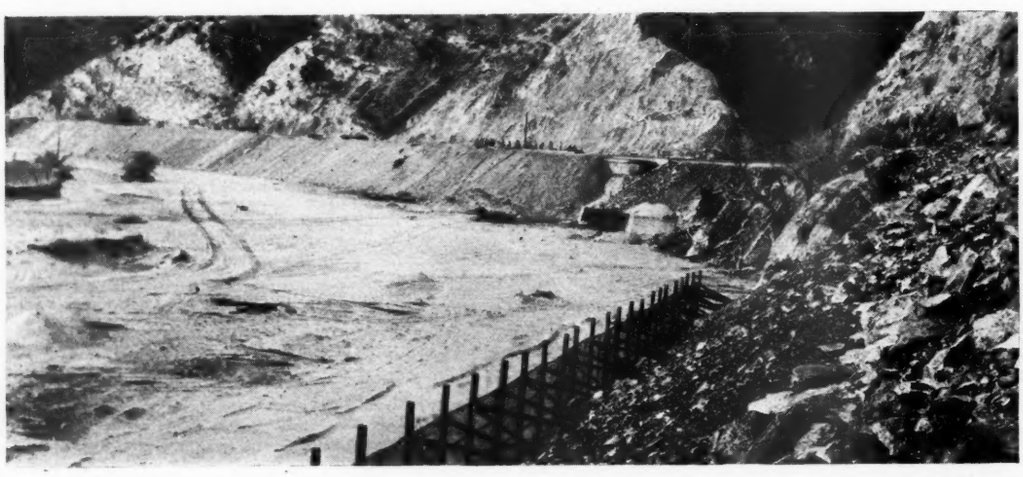
mately 100 miles west of Lang, located at the lower end of Soledad canyon, the damage west of the Tehachapi mountains was slight as compared to that through the mountain section extending from Lang, west to Acton, a distance of approximately 22 miles. In this latter section, from Acton, at M. P. 426, to M. P. 330, a distance of four miles, the damage consisted of numerous side washes and the inundating of the track with rock and other debris carried down from steep side canyons. From M. P. 430 to Paris, a distance of five miles, the damage consisted of many severe side washes, complete washouts of the roadbed and the extensive accumulation of debris on the track. From Paris east to Russ, a distance of 11 mi., damage was relatively light, but from Russ to Lang, directly within the canyon, a distance of four miles, the railroad, with the exception of a few short stretches, was so badly damaged that it was necessary to restore it almost in its entirety before train service could be resumed. Here, the roadbed was sidecut or completely washed away in successive stretches of 1,000 ft. or more; bridges and culverts were blocked with logs and debris; piers and abutments were undermined and washed out, dropping girders into the streambed; and two tunnels were badly choked with sand and logs. Of the 11 bridges in this territory, only four were left on their foundations, and three of these were buried under sand and debris. The fourth bridge, known as the Eleventh crossing, was left standing in the dry because the river, in washing out 1,100 ft. of its approach fill to a maximum depth of 22 ft., had formed for itself an entirely new channel.

Service Restored in 13 Days

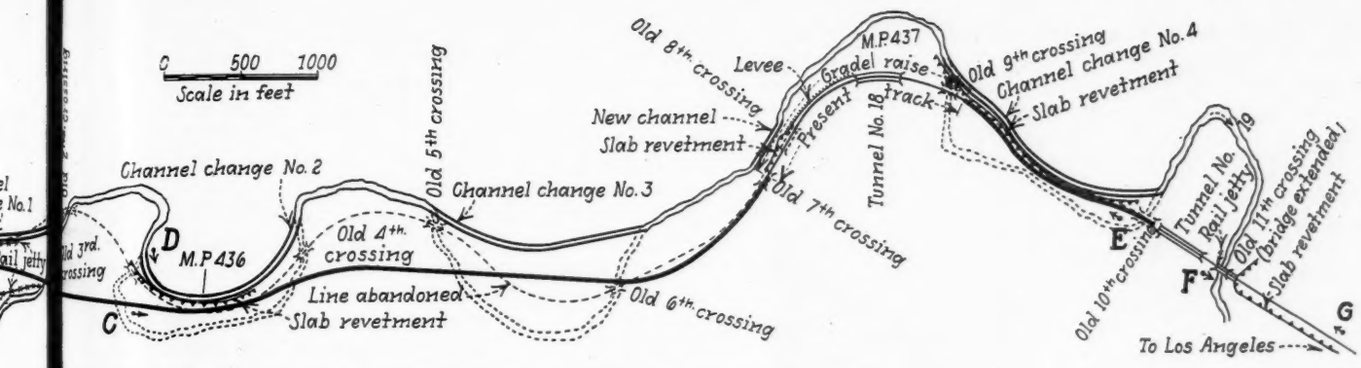
Following the flood in the Santa Clara River valley, the immediate problem of the railroad was the emergency restoration of its line to service in minimum time. How this was undertaken with a concentration of regular track, bridge and building and telegraph and signal forces, supplemented by large special gangs, employing company as well as contractors' equipment, has already been told. The first work required at many points was to put the river back into its normal channel. This was done largely by fleets of tractors with bulldozer attachments, used to throw up dams and levees of river sand. Later, this equipment was used effectively to build new roadway embankments. The steel bridges washed out were replaced by temporary trestles or by fills over metal or wood box culverts, while track reconstruction progressed as rapidly as possible with large forces of track labor, supplemented by as much mechanical equipment as could be made available. Working to this program, through train service over the valley line was resumed on March 15, thirteen days after the emergency rehabilitation work had started.

Line Raised Maximum of 17 Ft.

However, the resumption of train service was not the end of the work in Soledad canyon, because it was recognized that it was neither practical nor economical to install and maintain a system of bridges in this territory that would be adequate to handle the flood flow in the Santa Clara river. Furthermore, the grade line here was so low that proper bank protection could not be provided to prevent overflows and washouts. Therefore, before the temporary repair work was completed, it had been decided to continue the work of rebuilding the line in this territory, in a greatly strengthened position. In this major improvement work, a series of line changes were effected, extending over a distance of approximately 14,000 ft., throwing the track to the north, as much as



In Soledad Canyon, Looking East from Point "B", Showing the Raised Track on the South Side of the Canyon, and a Section of Rail-Type Jetty



Canyon showing the Track Relocation and Channel Changes Made, Eliminating Ten River Crossings

65 ft. at one point, and raising it a maximum of 17 ft. in its new location. This relocation of the line did not affect the ruling grade through the canyon, which was already in excess of 2 per cent, and, on the other hand, eliminated 205 deg. of curvature, including several 10-deg. curves.

At the same time, and of the greatest importance, the new line, with accompanying channel changes, eliminated 10 of the former river crossings, leaving only one of these crossings—that nearest Lang. The bridge at this crossing, an 83-ft. deck plate girder span on concrete abutments, which was not disturbed by the flood, was enlarged by the addition of a second 83-ft. deck plate girder span, doubling its water-carrying capacity.

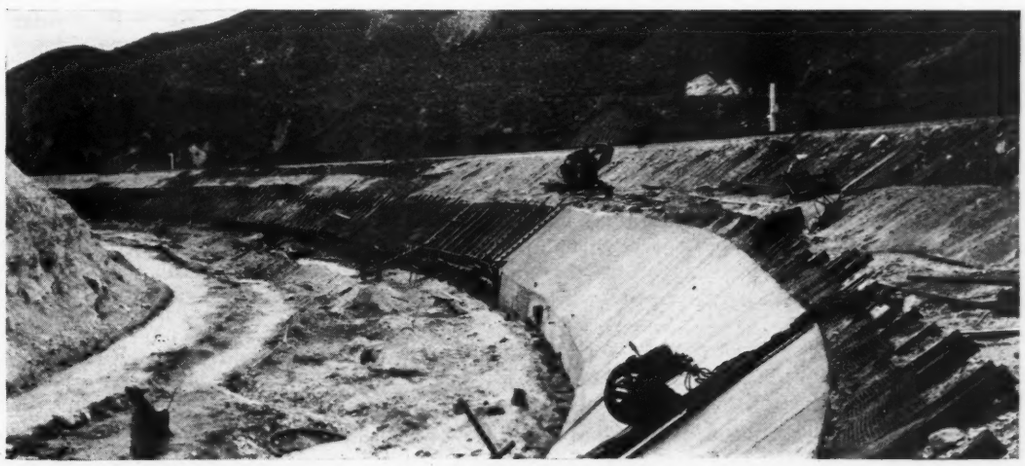
Constructing the new line also made it possible to separate grades between the line and Soledad Canyon road. This was effected by building a short piece of concrete tunnel section in cut and extending the road over it. It also required the building of a number of waterway openings beneath the track, including large concrete and corrugated pipe culverts, to take care of the flows from lateral water courses. One of the most interesting and effective of the openings provided under the new line was that to take care of the runoff from Agua Dulce canyon. Here, rather than construct an artificial opening through the new track embankment, the waterway channel was diverted to a tunnel cut through the hard native rock of a nearby bluff, where flood waters cannot undermine or otherwise damage the track structure.

Aside from the feature of extending this opening through a tunnel in natural rock, both ends of the tunnel were faced with concrete head walls, and, in addition, the upstream end was equipped with flared concrete wing-walls to direct the water to the opening and to increase its hydraulic efficiency when subject to a head. Furthermore, a scrap rail grillage was installed over the upper end of the opening, at an angle of about 45 deg. with the floor of the tunnel, to afford a means for collecting debris where it can be removed readily, avoiding the hazard of a debris blockade forming within the tunnel itself.

Tractors Used to Shift Track

In the line change work, a number of completely new sections of track were built without the interference of traffic, but at other points long sections of track were moved laterally intact to their new locations under traffic. In these latter cases, which involved horizontal shifts of as much as 40 ft. and changes in elevation up to 9 ft., the track was first lifted out of its old bed by means of power jacks, and was then pulled laterally and upward onto its new embankment by means of tractors, with cable hitches around the rail. Three tractors were used in most of the track shifting work, spaced approximately one rail length apart, and the individual pulls ranged from as little as 3 or 4 ft. to as much as 10 ft., depending upon conditions encountered and the care necessary to prevent the kinking of the rails.

In most of the track raising under traffic the fill material was dumped from trucks along the ends of the ties, and was then pushed under the track by tractor-bulldozers as the track was held in a raised position by means of power jacks. As soon as sufficient material was pushed beneath the ties to effect a raise of 12 to 14 in., the power jacks were moved ahead progressively, while large groups of men with shovels filled in beneath the center of the track as necessary and worked the material uniformly beneath the ties. By successive lifts



In Soledad Canyon, Looking East at "D" Through a Section of Channel Change No. 2, Showing a Section of the Concrete Bank Revetment Under Construction

of this character, made at intervals sufficiently far apart to permit the consolidation of each lift under traffic, the track was finally brought to its new sub-grade level and was ballasted with 8 in. of crushed rock.

All new track was laid with either 112-lb. or 131-lb. rail, the heavier section being employed on curves, and

In Soledad Canyon, Looking East from Point "A" Toward Tunnel No. 17½, Showing a Section of the Thousands of Feet of Rail-Type Jetties Installed in the Canyon

was provided with creosoted ties. On tangent track, all ties were fitted with double-shoulder tie plates, but on all curves they were equipped with Southern Pacific standard gage plates. Much of the stone ballast for the new line was salvaged from the old line. Where the extent of the alinement change was not great and there was little change in the elevation of the track, the old ballast was pushed to a position along the relocated track by means of the tractor-bulldozers, and from here was shoveled between the ties. Where the shift in alinement was considerable, or where the character of the intervening ground was such as to make this practice impracticable, the old ballast was transferred to the relocated track in carryalls and was then placed by bulldozers and shovels.

Effective Channel Changes

The four channel changes through Soledad canyon were one of the most important and effective phases of the improvement, in that they made it possible to construct the relocated line entirely on one side of the river, eliminating 10 of the former bridge crossings. This work, in itself, including the enlargement of a former channel change between the old Seventh and Eighth crossings, required the excavation and removal of approximately 250,000 cu. yd. of material, practically all of which was done by means of tractor-bulldozers and tractor-mounted cranes equipped with clamshell or drag-line buckets.

A feature of the channel change work, which, of necessity at several points confined the new channel rather closely between the railroad embankment and the adjacent canyon bluffs, was the provision throughout several thousand feet of these changes of a concrete slab revetment over the channel slope adjacent to the track. These revetments, which are essentially concrete blankets, paving the channel slopes, consist essentially of a poured-in-place slab, 4 in. thick, reinforced by means of second-hand rails on 4-ft. centers, a fabric of heavy, 1¼-in. mesh released from refrigerator car bunkers, and a few ½-in. round reinforcing bars.

In constructing these revetments, the reinforcing rails, usually in 33-ft. lengths and of 75- to 90-lb. section, were driven into the ground to refusal, inside the toe of the embankment slope, this being done by means of a crawler-mounted tractor equipped with a compressor and pile-driving rig. When these were in place, their lower ends, to a depth of at least 2 ft. below the bed of the river, were embedded in a continuous low concrete retaining wall, extended to a height of 2 to 4 ft., or more, as necessary, to the line of the embankment slope. At this point, the rails were heated by acetylene torches and were bent backward to fit the angle of the slope, usually 1¼ to 1. Where necessary to provide a wall of suitable height, the rails were extended in kind, employing second-hand angle bar splices, and, where required, irregularities in the natural embankment slope were filled up to the bases of the rails with stone, topped with fine material, to provide a bottom form for the concrete slab. With the rails in place and the reinforcing mesh securely

In Soledad Canyon, Looking West from Point "E", Showing Channel Change No. 4 Between the Old Tenth Crossing and Tunnel No. 18

wired in position in the plane of their top faces, the concrete was prepared by and chuted directly into place from a mixer located on top of the embankment. In this type of revetment the railroad feels that it has not only provided positive protection for its track embankment, but also that, from the standpoint of hydraulics, the smooth surface of the revetment will have a distinct bearing upon the volume of water that can be handled through the channel in a given period.

Rail Jetties Built

At many locations along the relocated line less subject to the threat of embankment wash than where the concrete revetments were installed, long sections of rail

jetties or fences were built, both to retard flow and to promote the settlement of material carried by the water, rather than scour. These jetties are generally of two types—one more substantial than the other for use where conditions appear to be particularly threatening. The simpler type consists essentially of a single row of second-hand rails driven into the ground to a depth of 15 to 23

In Soledad Canyon, Looking East from Point "C" Over a New Section of Line Built and Through Channel Change No. 2

ft., forming a framework at least 10 ft. high, to the face of which are fixed 4 or 5 horizontal lines of ¾-in. scrap cable and a solid face of scrap refrigerator car bunker netting.

The rails, usually of 75- to 90-lb. section, are spaced 6 ft. center to center, while the lines of cable are spaced approximately equal distances apart over a height of 7 ft. 11 in., and are fastened to the rails by means of U-bolts. This spacing of the rails and cables is sufficiently close to give great strength to the fence, and, at the same time, is the most suitable for the standard size pieces of mesh available, (6 ft. 3 in. by 7 ft. 11 in.), which are wired securely to both the cables and the rails. A special feature of this fence is that it is installed in a trench and faced below the ground level with two or three 4-in. by 12-in. creosoted planks, set on edge, to prevent undermining or scour. Following the installation of the rails and the toe boards, the trench is back-filled with rip-rap, as required.

The still more substantial type of fence or jetty is similar to that already described, except that it is tied to and braced by a second line of rails driven securely into the ground, 7½ ft. to the rear. In this second line, made up usually of scrap, 62-lb. rails, the rails are located directly behind each alternate face rail. From each of the brace rails, sections of scrap rails, acting as struts or braces, extend three ways—to the face rail directly ahead of it, and diagonally to the face rail immediately each side, thus tying the entire fence together in a truss-like formation. In some cases, adding further to the stability of the jetty, the space between the two lines of rails is partially filled with rip-rap.

The purpose of these fences, as already stated, is not to prevent the passage of water, but rather to retard its flow to the point where the settlement of solids, rather than scour, will take place behind it. Where used in conjunction with rip-rapped slopes, it has the added function of preventing the undermining and eventual dislocation of the rip-rap.

While the line improvement work within Soledad canyon was the largest single project which has been carried out by the Southern Pacific in Southern California to strengthen its lines against flood conditions, costing in itself approximately $660,000, it was by no means the only important project of this character carried out. In fact, wherever serious damage occurred, a careful survey was made of the conditions causing the damage and attempts were made to so reconstruct as to avoid similar damage in the future. This resulted in the enlarging or complete rebuilding of numerous bridges to provide larger waterways, and, also, the rebuilding of many bridge piers and abutments at deeper levels and with more secure anchorage to prevent their being dislodged or otherwise damaged by subsequent floods. For example, north of the Soledad canyon work, in the Tehachapi mountains, three bridges over Tehachapi creek, seriously damaged by the flood, were replaced with heavier and longer steel girders on new concrete abutments. Directly within the city of Los Angeles itself, the road's important double-track Dayton Avenue bridge over the Los Angeles river, consisting of three 100-ft. girder spans, two of which were lost with the failure of a pier, was completely rebuilt as a two-span structure, employing a new 385-ft. continuous through plate girder and a single streamlined center pier.

Further down the Los Angeles river near Southgate, on the Santa Ana branch, a two-span structure, consisting of two 157-ft. 6-in. steel, pin-connected truss spans on concrete abutments and center pier, was completely rebuilt to provide a larger waterway opening. Here, the flood waters were sufficiently high and forceful to wash the spans from their foundations and to damage them seriously as they were carried downstream. Beyond economical reclamation, these spans were cut up and scrapped, and were replaced by a complete new structure on a higher grade line, consisting of two 116-ft. truss spans and two 98-ft. through girder spans, given support on new concrete abutments and piers founded on timber piles.

The east approach to the Santa Ana river bridge at Colton, on the main line to Yuma, Ariz., an open-deck trestle, 705 ft. long, 315 ft. of which was washed out, was entirely replaced as a pile trestle with wider openings between bents. At another point on this line, near Guasti, a 22-ft. ballast-deck bridge on concrete abutments, was replaced with a 58-ft. girder span, the abutments and approach embankments having been washed out due to the insufficient opening provided by the original structure. At Beaumont, a trestle opening 25 ft. long, which had suffered similar damage as the result of providing an insufficient waterway opening, was replaced with a 58-ft. through girder span on concrete abutments, founded on steel rail piles, and at still another point on the Yuma line, near Etiwa, a 30-ft. ballast-deck trestle, washed out, was rebuilt in kind but doubled in length.

Much Work on Branch Lines

Similar bridge improvement work to enlarge openings and strengthen substructures was carried out on other branch lines. For example, the 585-ft. open-deck trestle crossing of the Santa Ana branch over the Santa Ana river, near West Orange, all of which was swept away by the flood because of obstructed openings, has been replaced by three 100-ft. through trusses and two 57-ft. girders, at a higher level than the original structure and carried on timber-pile-supported concrete abutments and piers. Further, on the Tustin branch, the 1,620-ft. crossing of the Santa Ana river, consisting of 1,450 ft. of

open-deck trestle, one 120-ft. through riveted truss span and two 25-ft. steel I-beam spans, was badly damaged by the shifting course of the flood waters in this river, and was subsequently repaired and enlarged by the addition of a 120-ft. steel truss span. At another point on the Tustin branch, near McPherson, a 300-ft. open-deck trestle over San Diego creek, a portion of which was washed out due to drift accumulation and water pressure, was replaced in part by three 40-ft. deck plate girder spans on pile piers.

On the Santa Paula branch, near Buckham, a 199-ft. ballast-deck trestle, 90 ft. of which was destroyed, has been replaced with one 82-ft. and one 70-ft. through girder spans on concrete abutments and piers supported on rail piles, and on the Duarte branch, near Sunny Slope, where a 130-ft. section of a 272-ft. open-deck trestle over Eaton Canyon wash was destroyed, the situation has been improved greatly by the erection of a 58-ft. girder span over a concrete flume channel constructed by flood control authorities.

Supplementing the extensive work which has been done in enlarging bridge openings where there was evidence of insufficient openings before to handle the peak flood conditions, many individual piers and abutments have been rebuilt or strengthened, and given a footing protection of heavy rip-rap, at places confined by scrap rails driven into the stream bed. In addition, many miles of embankment have been given new or additional rip-rap protection.

The major part of all of this work, with the notable exception of the line change grading and channel changes in Soledad canyon, which were carried out under contract, has been done by the regular track and bridge and building forces of the Southern Pacific. All of the work has been carried out under the general direction of W. H. Kirkbride, chief engineer of the Pacific lines of the Southern Pacific, and his staff.

Senator Reed Analyzes Transportation Problem

SENATOR CLYDE REED from Kansas—a member of the Senate Committee on Interstate Commerce and long an able student of transportation questions—recently wrote a letter to President Vesecky of the National Farmers' Union in which he analyzed the competitive transportation situation. He has given us his permission to quote extracts from this letter which we do as follows (emphasis supplied):

"We have a surplus of transportation facilities in the United States. We are trying to work out a national program of utilization of each type of transportation, i.e., railroad, highway, water—according to the economic value and efficiency of each. There is no attempt being made to stifle any form of transportation for the benefit of any other form of transportation.

"Regulation of transportation rates may or may not be a wise policy, but at least it is the policy which has been adopted for both railroad and highway transportation. The railroads maintain their own right-of-way upon which they operate. The highway users pay taxes of various kinds which go to the construction and upkeep of the highway. Whether the amount paid is adequate or inadequate, is a matter of controversy, but at least it is a substantial sum. (S. 2009 provides for an investigation of transportation subsidies out of the public treasury, to be made by a body appointed by the President.)

"It is inconsistent and illogical to strictly regulate the rates of two out of the three competing forms of transportation, and leave the other form unregulated. Either the waterways will be regulated comparably—so far as its character will permit—with that of the railroads and the highways, or regulation upon these latter forms of transportation will be relaxed, in which event that would probably put the inland waterway carriers out of business. At least the majority of inland waterway carriers who were before our Committee, or who talked to me personally, were of this opinion. I am not including in this statement the largest users of the inland waterways.

Principal Waterway Users Are Big Corporations

"By far the greatest amount of tonnage movement is that of iron, steel and coal on the Ohio river; petroleum and its products, cement and steel upon the inland waterways generally. These commodities are usually moved by great corporations who own their own boats and are therefore private carriers of their own commodities and not subject to regulation under existing law.

"At the present time the great bulk of those commodities which comprise a very great proportion of the total tonnage are sold upon a delivered price, based upon railroad freight rates. In other words, these **great corporations get the largest benefit from expenditures made out of the public treasury for the improvement of the inland waterways.**

"There were brought to our attention a few instances where it was alleged that the grain farmers received some benefit from the lower charge for transportation on the inland waterways. **(Inland water transportation is not low cost transportation. It is high cost transportation—the highest cost in fact of any form of transportation. It is low charge transportation, only because the difference between the cost and the charge is paid out of the public treasury.)** These were corn farmers and the examples offered were confined to a very few points in Illinois and Iowa. Even so, the Senators from both Illinois and Iowa favored regulation of the river rates, both in justice to the common carriers on the rivers and to the other forms of transportation. In fact, after four days debate S. 2009 passed the Senate with a vote of 70 for; 6 against.

"In not a single case has it ever been shown that the wheat farmer has received a particle of benefit from inland water transportation. I do not mean to say that it would not be possible to develop a system where he might get some benefit, but the fact remains that it has not been done yet, and will not be done so long as wheat is sold on the basis of the primary market price, less the freight rate from the country point to the terminal market.

"I have no doubt that elevator operators may have received limited benefits from this source, in fact, I know they have, but so far as I know, no part of that benefit has been given to the farmer. Possibly, if the elevators shipping grain by barges were owned by a co-operative, the farmer members might indirectly receive a benefit, but under the present system there is no way for the farmer to benefit by the lower rate paid by the elevator shipper of grain, or of farm implements. In this latter class of cases, the price would still be fixed upon the railroad rates, and either the manufacturer or the dealer would pocket the difference.

"I do not want to be understood as saying that it would be impossible for this situation to be changed to some extent over a long period of years. But I am reasonably certain that it cannot come quickly nor in a large degree, nor ever affect the great mass of farmers unless

(*Continued on page 288*)

L. & N. E. Covered Hopper Cars for Cement Handling

Twin-hopper design, built by A. C. F., is of welded construction and is capable of dumping 78-ton load in 22 minutes

DURING the last 24 months, the Lehigh & New England has placed in cement-transportation service 175 cars of the type shown in the illustration which were built by the American Car and Foundry Company. These cars have contributed materially to an increase in the cement tonnage handled by the road. They have met with the approval of shippers and consignees served by this equipment, especially contractors using the cars in connection with the construction of large concrete projects, such as dams, highways, bridges, piers, etc., because of the ease and economy with which the cars can be loaded and unloaded.

This type of car is also adapted to the handling of other bulk commodities such as sand, lime, dolomite, carbon black, solid chemicals, paint pigment, wood flour, Fuller's earth, powdered coal, etc. With a lading of 400 barrels of cement per car, the cars can be unloaded into the ordinary track hopper in approximately 60 minutes and into the usual single-screw conveyor unloader in about two hours. In one instance, a car of this type was unloaded into a chute leading to a floating barge in 22 minutes using all four gates simultaneously. The amount of cement discharged in this instance was 78 short tons.

An outstanding feature of these cars is the use of fusion-welded butt joints wherever the lading comes into contact with the inside surfaces of the hopper sheets, thereby eliminating projections such as rivet heads, weld beads, or projections of any kind which tend to slow up or even stop the discharge of lading from a hopper. Further, to prevent any such happening, all weld beads in contact with the lading are ground off flush with the plate surface.

Description of the Cars

These cars are of the twin-hopper type with four sliding gate-valve type outlets and a roof with 10 watertight hatches for loading. The general design of the hoppers follows the typical construction of a coal hopper, except that this car has a center partition sheet across the car at the cross ridge, and the gate-valve type outlets. The material used is open-hearth steel, except that plates ¼ in. and under are copper-bearing steel.

The end floor sheets and the outside hopper sheets slope at 50 deg. and the cross-ridge sheets slope at 60 deg. from the horizontal.

The side construction consists of $\frac{3}{16}$-in. sheets; 6-in. by 3½-in. by ⅜-in. side-sill angles and 4-in., 10.3-lb. Z side plates. The side posts are $\frac{5}{16}$-in. U-shaped pressings welded to the outside of the side sheets. A 9-in. 15-lb. channel on the outside of the side sheets forms the

L. & N. E. cement car, built by American Car & Foundry, which has a capacity of 78 tons. It is of the twin hopper type with four hopper gates and has a covered roof with 10 hatch openings

bolster posts. The center sills consist of two, 13-in., 35-lb. channels with a ⅜-in. cover plate extending from striking casting to striking casting.

The bolster is of web-plate and chord-angle construction with top and bottom cover plates. The web plate does not extend to the floor plate as in typical car construction. The end floor sheets are supported over the bolsters by vertical angles at the center, connected to the bolster, and extending to a ⅜-in. plate bent to fit the slope of the floor sheets and extending the full width of the car. This plate is further supported at the side

Principal Dimensions and Weights of L. & N. E. Cement Cars

Length over striking plates, ft.-in.	32– 3⅝
Length inside, ft.-in.	26– 3⅝
Width inside, ft.-in.	9– 8
Width overall, ft.-in.	10– 4
Height, rail to side plate, ft.-in.	11–10
Distance between truck centers, ft.-in.	22– 3⅝
Truck journals, in.	6 × 11
Truck wheelbase, ft.-in.	5– 8
Light weight, lb.	53,800
Weight of car body, lb.	34,680
Weight of trucks, lb.	19,120
Load limit, lb.	156,200
Cubic capacity, cu. ft.	1,790

by a large vertical ¼-in. gusset plate extending to the top of the bolster and riveted to the bolster post forming a rigid construction at this point.

The end floor sheets are also supported and reinforced by angles extending from the roof down the slope of the sheets to the center of the sill in two pieces. They are welded to the floor sheets and riveted to the center sills and angles over the bolsters. Two intermediate angle stiffeners are welded to the underside of the floor sheets and extend from the ⅜-in. transverse plate stiffener to a point level with the center sill.

A ¼-in.-plate longitudinal hood covers the center sills between the floor sheets and the cross-ridge sheets. All fabrication in the interior of the car, 3 in. below the eaves, is arc welded with welds finished to a smooth surface so as to prevent lading from adhering to it.

The roof consists of No. 11 gage copper-bearing steel sheets riveted to angle carlines. Hatch door openings, 3 ft. by 3 ft., are spaced equally, five on each side of the longitudinal center line of the car. Hatch frames of 3/16-in. copper-bearing steel, 5½ in. high, are provided with hinged covers of No. 11 gage copper-bearing steel. Asphaltum paper is applied to all roof joints to insure a water-tight roof. Hatch-door locking bars extend the full length of the car on each side. Each bar is locked at both ends of the car between two end doors with a seal-pin arrangement. The bars have sufficient tension in the arms to insure a door being held water-tight.

Enterprise cast-steel frames and gates are welded to each hopper outlet. The lowest point of the frame is 9 in. above the top of the rail.

The 70-ton trucks are A. A. R. double-truss type with cast-steel integral-box side frames and bolsters. They are fitted with coil-elliptic springs and chilled-iron car wheels. The cars are equipped with AB brakes furnished by Westinghouse. One of these cars is a part of the railroad exhibit at the New York World's Fair.

THIS YEAR MARKS the close of a quarter century of electric operation on the Norfolk & Western's Pocahontas zone. It is estimated by the Westinghouse Electric & Manufacturing Co., which equipped the electric locomotives operated over the 200-miles of electrified track in the territory, that since the change-over in 1914 the fleet of 16 locomotives has hauled more than 270,000,000 tons of bituminous coal eastward,—enough to heat every house and office building in the United States for an entire year.

Senator Reed Analyzes Transportation Problem

(*Continued from page 286*)

we can change our whole system of grain marketing and of the method of handling articles which farmers buy.

"I know C. E. Childe of Omaha very well. I know Cleveland A. Newton of St. Louis quite well. Both are in the employ of the Mississippi Valley Association which is a glorified Chamber of Commerce. Both are able men. They perform in precisely the same way that other lobbyists of their kind perform, and **attempt to use farm organizations in their appeal to Congress, because in and of themselves they have little appeal.** Washington, the Capitol Building and the offices of members of Congress are over-run by their kind. Committees and individual members listen to them, but we desire that they appear in their true form and not as representatives of farm organizations. As a matter of fact, neither of these two men, nor any of their kind of people ever do anything, or attempt to do anything, actually, for the farmer. To them the farmer and his organization are pawns in their game, which is **a game played mainly by Chambers of Commerce from cities who are much more interested in the great corporations** whose tonnage I have described. These corporations, through their ramifications reach into the Chambers of Commerce and such organizations as the Mississippi Valley Association.

"I have no prejudice against Chambers of Commerce. I am a very active member of the one at home, but when they come to me as a Senator or to my Committee, I want them to speak for the people they actually represent, and not undertake to speak for people who they never have represented, and with whose best interests they have little concern.

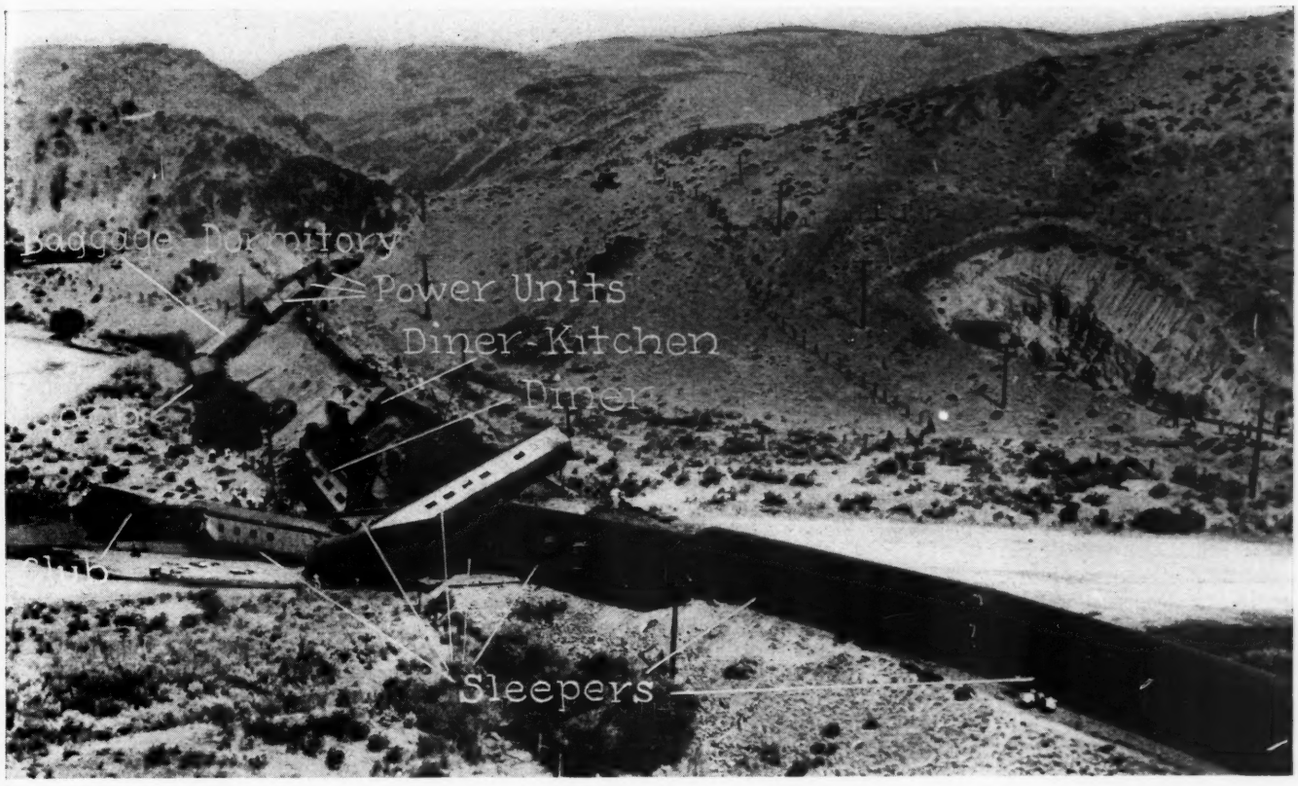
"I think I know something about the transportation problem of the country. I think I know something about the farm problem, taken as a whole, and the way transportation costs affect the farmer. Certainly, I ought to know after all the years I have represented farm organizations in transportation cases, sometimes being paid and sometimes actually spending more money for expenses than the Farm Organizations have available.

Waterway Lobbyists Have No Love for Farmers

"I want to help establish a sound transportation policy for the country. If I get a bit weary of the special pleaders who so frequently appear here under false pretenses, or at least, in a false guise, it is because there are so many of them. It is my business to listen to people, and I do so, including these lobbyists, but I want them to be open and frank and candid about whom they represent.

"We are trying to co-ordinate the railroads, the highways and waterways, so each form of transportation may be efficiently and economically utilized. The final vote in the Senate on the passage of this bill after full debate for four days, is eloquent testimony as to whether we were successful.

"So far as waterway regulation is concerned, there is little if any difference between the Senate bill and the House Bill. To me, it is the height of impertinence that these men should ask accredited representatives and leaders of Farm Organizations to pull their chestnuts out of the fire. They have no more genuine concern about the general welfare of the farmer than I have about the copper mine operators of Arizona."



Looking West Over the Site of the Wreck Showing Cars Piled in the Humboldt River

"City of San Francisco" Derailed

Vandals move rails to hurl cars in Humboldt River near Harney, Nev., killing 23 and injuring 119 persons

THE first major derailment of a light weight high-speed train since their inauguration in 1934 occurred at 8:33 p. m., Pacific time, on August 12 about 1¼ miles east of Harney, Nev., on the Southern Pacific, when vandals moved a rail out of position, derailing the westbound 17-car Streamliner "City of San Francisco" and causing it to plow through a 160-ft. truss bridge into the Humboldt river. Twenty-three persons were killed, including 9 passengers and 14 members of the crew, while 119 persons were injured.

Immediately following the accident, it was found that an angle bar had been removed and the end of one rail moved four inches toward the center of the track, in which position it was respiked and covered with weeds. In doing this, the rail bonds had not been broken, so that the signals gave no indication of danger. At the same time, two lining bars were found near the accident. Because of these circumstances, the coroner, Roy S. Harris, of Eureka County, Nev., rendered a verdict that "the 23 people came to their death by train accident, and to the best of our belief and judgment the wreck was caused by a misplaced rail, misplaced by person or persons unknown." As a result of this evidence and the belief that some one familiar with railroad operation had moved the rail, federal and state police began a search for the vandals. One person sought was implicated in a derailment in Washington several years ago and was suspected of complicity in a derailment near Carlin, Nev., a year ago. The Southern Pacific has posted a reward of $5000 for information leading to the arrest and conviction of the person or persons responsible for the wreck.

This streamliner, carrying 194 persons, left Chicago on the evening of August 11 and was taken over by the Southern Pacific at Ogden, Utah, 270 miles east of the accident, for operation over its lines to San Francisco. In compliance with operating restrictions, it slowed down to 60 m. p. h. for the bridge and the curves leading to and away from it. Although the rail that was moved was 165 ft. east of the bridge, the three power units, the baggage-dormitory car, the coach and the diner-kitchen passed over the bridge. The power units came to rest in an upright position about 1,000 ft. beyond the bridge and still coupled, with the first unit on the track, the second slightly to the left of the track and the third several feet to the left of the track with its rear end down the embankment.

The baggage dormitory car and coach were thrown on their sides and down the embankment about 25 and 35 ft. respectively. The diner-kitchen broke loose from these cars and landed upside down, with one end resting on the track and the other down the embankment. It is believed that the diner was on the bridge when it col-

lapsed, but that the momentum of the car carried it almost beyond the river and to the left of the approach. The impact with the bridge practically demolished this car. When the bridge fell, the club car, in which six passengers were killed, and three sleeping cars, piled up in the river, while the fourth sleeping car stopped upright with its forward end tangled in the bridge. The fifth sleeping car came to rest upright a few feet to the left of the track and also tangled in the bridge, while the sixth stopped upright on the track with its head trucks derailed. The remaining three cars of the train were not derailed.

Damage to Equipment and Track

Although the first six units of the train continued about 1,000 ft. after derailing and three turned over, relatively little damage occurred to this equipment. The most severely damaged cars were the diner, the club car and the three sleeping cars which were thrown against the steel bridge and its abutment before piling upon each other. Approximately 1,000 ft. of track will have to be entirely rebuilt, as will also the steel bridge, which was entirely destroyed.

There were no unusual operating conditions applicable in this territory and the train was proceeding at permissible speed. The accident occurred in the "paired track" territory, wherein westbound trains are operated over Southern Pacific tracks and eastbound trains over those of the Western Pacific. It is automatic block signal territory.

This train, the second "City of San Francisco," was placed in service by the Union Pacific, the Southern Pacific and the Chicago & North Western between Chicago and San Francisco on January 2, 1938, and since has covered more than 429,000 miles.

Immediately after the accident, efforts were made to restore the service of the streamliner. A train consisting of two extra Diesel-electric power units maintained by these roads and standard equipment was assembled and placed in service at Chicago on August 17, with the result that only one trip was lost, that scheduled to leave San Francisco on August 14.

At the same time, negotiations were begun with other railroads for the loan of light-weight, streamlined cars that could be used as the City of San Francisco while its damaged cars are being repaired and the cars that were not damaged are being inspected.

Trucks Give Flexible Operation

STARTING some years ago with a few small branch lines in Kansas, the Missouri Pacific has built up a comprehensive rail-highway co-ordination system in Kansas, Missouri, Nebraska and Louisiana. In the first three states, 42 trucks are in operation, covering 2,531 highway route miles and more than 5,000 truck miles daily. This portion of the co-ordinated service is in charge of the general superintendent of transportation, and is operated under lease by the Columbia Terminals Company.

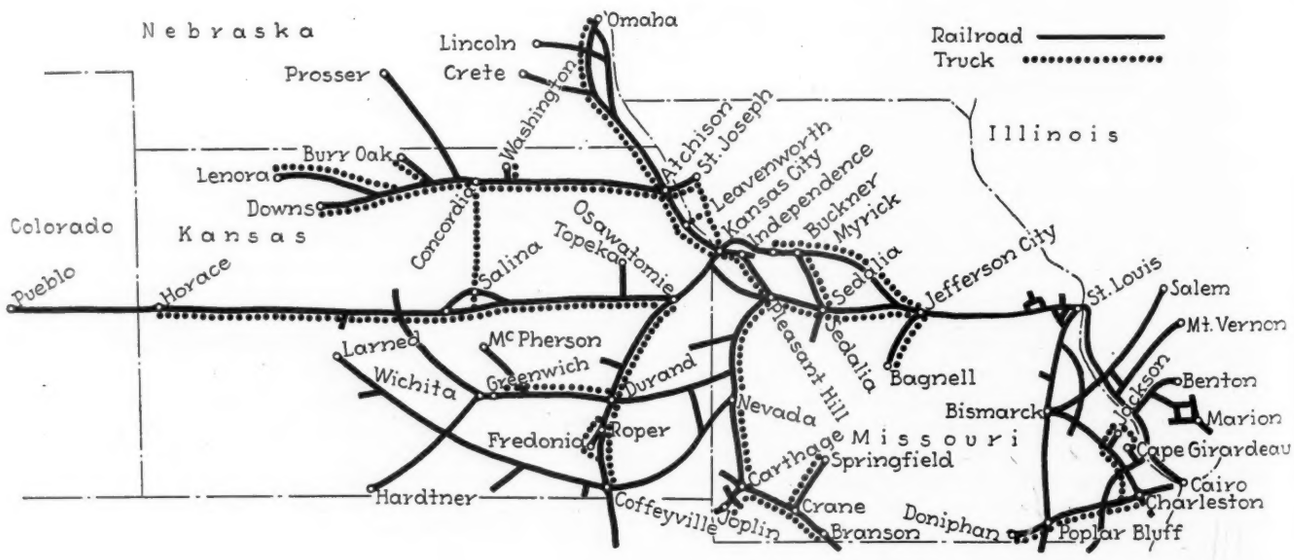
The Louisiana operation, started about a year ago, consists of seven trucks operating 406 highway route miles daily. It is in charge of the railway's general merchandise agent at Houston, Texas, and the trucks are operated under lease by W. A. Smith Company of Houston.

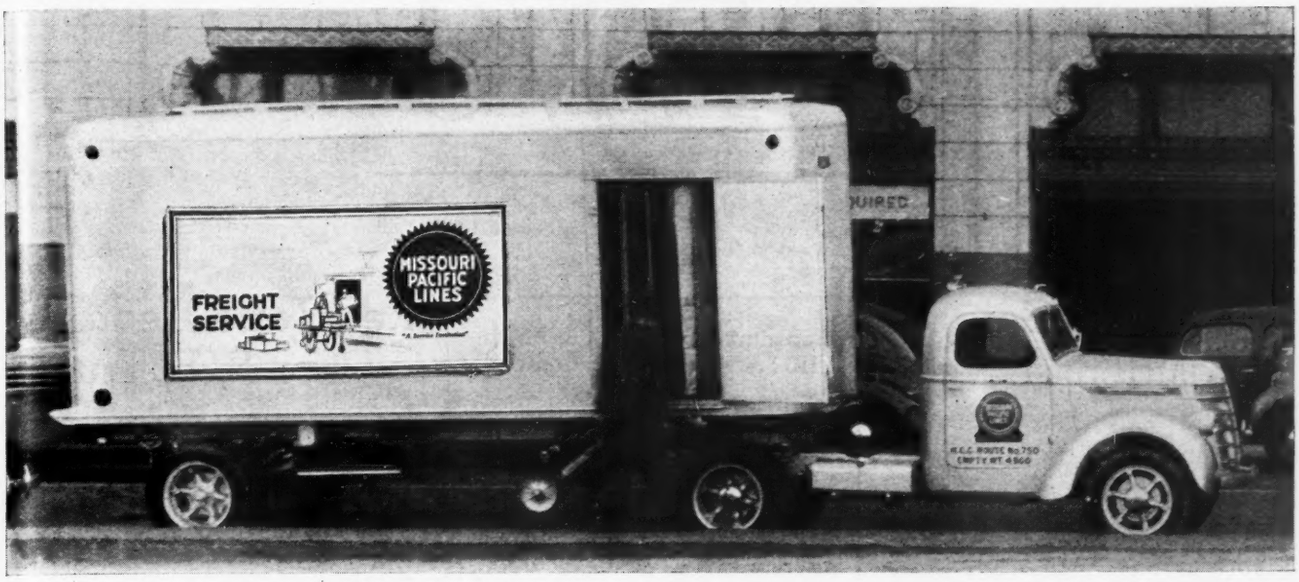
Both systems are based upon the dispatching of l. c. l. traffic by train from the principal merchandise producing centers to strategic transfer points. These transfer stations also serve as assembly points to which merchandise moving in the opposite direction is brought by trucks from neighboring stations and loaded into cars for shipment by rail. In actual operating practice, it has been demonstrated that from 24 to 48 hours are saved in the delivery of merchandise by this means. As a result of this improved service, merchandise traffic on the M. P. has shown a definite upward trend.

The Northern Operations

The co-ordinated operations in the northern section consist of 35 routes in Missouri, Kansas and Nebraska. The Columbia Terminals Company provides the equipment and drivers for these routes in accordance with the traffic demands. The tractor semi-trailer units in this service handle a pay-load of 12,000 lb., while the trucks handle 8,000 lb. The fleet of 42 units covered 1,414,822 miles in co-ordinated service in 1938. The truck drivers, although employed by Columbia, are thoroughly conversant with the Booster Club system of employee solicitation widely used by the Missouri Pacific, and form a staff of alert freight solicitors as well as merely operating the trucks.

The routes and highway mileages on the northern





The Missouri Pacific Has Built Up a Large Rail-Highway Co-Ordinated Service

system, as shown on the accompanying map, are as follows:

KANSAS		
Atchison	Centralia	71
Greenleaf	Centralia	49
Concordia	Burr Oak	42
Concordia	Salina	58
Concordia	Washington	57
Downs	Stockton	45
Downs	Lenora	64
Durand	Greenwich	84
Durand	Coffeyville	76
Osawatomie	Durand	70
Osawatomie	Council Grove	105
Council Grove	Salina	77
Lindsborg	Hoisington	64
Hoisington	Scott City	128
Hoisington	McCracken	47
Horace	Scott City	49
Concordia	Downs	77
NEBRASKA		
Omaha	Falls City	105
MISSOURI		
Kansas City	St. Joseph	55
Nevada	Pleasant Hill	70
Nevada	Joplin	65
Springfield	Branson	56
Jefferson City	Bagnell	49
Jefferson City	Sedalia	62
Jefferson City	Marshall	96
Buckner	Marshall	60
Independence	Sedalia	92
Carthage	Crane	79
Poplar Bluff	Doniphan	30
Poplar Bluff	Cape Girardeau	84
Poplar Bluff	Charleston	64
INTERSTATE		
Atchison, Kan.	St. Joseph, Mo.	24
Atchison, Kan.	Falls City, Nebr.	58
Kansas City, Mo.	Atchison, Kan.	46

It will be noted that these truck routes fan out from certain designated concentration and distribution points. Some of these are sizeable cities; others, for example, Durand, Kan., are merely villages, but important railway junction points. Further, it may be noted that the routes vary between 24 and 128 miles, indicating the diversity of uses to which the trucks are put. Many of these routes parallel the railway, either the main lines or the branches. Others, because of highway conditions, leave the line of the railway for considerable distances. Still others go cross-country from one branch line to another or from the main line to a parallel branch, passing through many towns not served by the M. P. rails. This straying from the parent railway, however, is merely a matter of operating convenience and in no case do the trucks pick up or deliver freight at towns not served by the M. P. rails.

The development of subsidiary truck lines in Louisiana is still in the formative stage. Nevertheless, in the first year of operation, these routes have been built up to an average of about 27,000 truck miles per month, and arrangements for still further expansion are being made.

The present routes are: Port Barre-Franklin, 71 miles; Opelousas-Franklin, 73 miles; Kinder-Baton Rouge, 95 miles; and Baton Rouge-De Quincy, 128 miles.

Communication . . .

Narrow R. R. Selfishness Drives Traffic to Trucks

LOUISVILLE, KY.

TO THE EDITOR:

Here is another neat example of the way in which railroad management drives business to the trucks:

A small shipper, having no traffic manager, presents a 260 pound shipment destined to a point in Texas to an initial line in Kentucky, on an open bill of lading trusting this railroad to forward via the quickest and best route. The originating line has a choice of three gateways to deliver this shipment to a connecting line for forwarding to Texas. Via gateway A the shipment will be delivered at customer's door early afternoon of the second day or about six hours slower than first class mail. Via gateway B the shipment will be delivered on the third morning. Via gateway C fourth morning delivery will be effected.

Routing via gateway A gives shortest haul and smallest division of earnings to initial line, via gateway B revenue is greater and via gateway C revenue is at its maximum.

Under 80-year-old long-haul maximum revenue policy of this railroad, service is cast to the winds and the shipment is routed via gateway C, delivered on the fourth day.

Rates via truck or rail are identical. Truck service provides third morning delivery. Both shipper and consignee fume about slow rail service, elect to use trucks on future shipments.

This is an actual case. Multiply it a million or more times a month all over the country and we have one reason why millions of such shipments move by truck.

What is railroad management going to do about it? It could establish service routes for unrouted tonnage and let the earnings average out.

E. W. RUSSELL.

NEWS

Bridge Bill Gets Presidential Veto

Roosevelt disapproves measure recommended by his committee-of-six

Rejecting the recommendation of his committee-of-six in that connection, President Roosevelt has vetoed the so-called bridge bill which would have relieved the railroads of part of the cost of reconstructing bridges required to be altered in connection with waterway improvements carried out by the federal government. As pointed out in last week's issue, passage of this measure (S. 1989) and the Chandler voluntary railroad reorganization act comprised the principal finished business in so far as railroad legislation was concerned when Congress adjourned on August 5. The Chandler Act was signed by the President on July 28, as noted in the *Railway Age* of August 5.

The bridge bill's provisions were embodied in the House version of S. 2009, the omnibus transport bill, but the Senate handled the matter in a separate measure which was the one enacted when it became evident S. 2009 would be left at the conference stage until the next session. The President's "Memorandum of Disapproval," dated August 11, ends with the assertion that "it does not appear that any valid reason exists for the assumption of this additional burden by the federal government." No reference is made to the fact that the bill's provisions were in accord with the committee-of-six program.

After a brief statement of the bill's purpose the President's memorandum goes on to say: "The General Bridge Act of March 3, 1906 . . . authorizes the Secretary of War to require the alteration of any bridge which, in his opinion, may at any time unreasonably obstruct navigation, the cost of such alteration to be borne entirely by the owner. This has been a condition precedent to the construction of bridges over the navigable waters of the United States and the owners are fully apprised of the condition before the construction work is undertaken. The Supreme Court has repeatedly held that where a bridge is an unreasonable obstruction to navigation the removal of such obstruction may be required without compensation from the United States, and such removal cannot be regarded as a taking of private property within the meaning of the Constitution. To require the federal government to pay the cost of alterations which do not directly benefit the bridge owners would impose upon it heavy financial liabilities. It is the duty of the government to preserve and protect the navigability of our navigable waters, and when any person, association, corporation, or other body is authorized to build a structure over any such stream, the United States should not be required to bear any part of the cost of alterations which are necessary to avoid obstructions to navigation."

As noted in the *Railway Age* of May 20, the Secretary of War wrote a letter to the Senate committee on interstate commerce, stating that he could see no grounds to warrant the assumption by the federal government of the expenditures proposed in the bridge bill. Similar sentiments were voiced by the Secretary of Agriculture.

Substitute Equipment to Pinch-Hit For Wrecked Streamliner

Latest information on light-weight equipment to be used as the City of San Francisco while its damaged cars are being repaired was received since preparation of the feature article describing the derailment of the streamliner on August 12, which appears on page 289. Negotiations for the loan of such equipment have been completed and the three operating roads report that it will be placed in operation at Chicago on August 23 on a 39¾-hr. schedule. It will include two extra 4,000-hp. Diesel-electric power units maintained by the roads, a baggage car, a coach, a kitchen car and diner owned by the Union Pacific, six Pullman room cars of the type used on the Century and Broadway limiteds and the "George M. Pullman" room-observation car now operating on Treasure Island at San Francisco. W. M. Jeffers, president of the Union Pacific, in discussing this train, said that the three roads will purchase two more trains of the same type as the City of San Francisco, thereby increasing the number of their Chicago-California streamliners to six.

Central Greyhound to Guarantee Notes

Division 4 of the Interstate Commerce Commission has granted authority to the Central Greyhound Lines, Inc., (a New York Central affiliate), to assume obligation as a guarantor of $150,000 of secured promissory notes.

Red Tape Decreed For R. R. Trucks

I. C. C. cans simple permits for truck substitutions, prescribes full certificates

Special permissions and tariff rules authorizing the substitution of motor vehicle service for rail or water service and of rail or water service for motor vehicle service are in contravention of the certificate and tariff provisions of the Motor Carrier Act and should not be renewed when they expire, according to the Interstate Commerce Commission's decision in its Ex Parte 129 investigation of the matter. The commission has thus adopted the recommendations of Examiner Burton Fuller's proposed report which was reviewed in the *Railway Age* of April 1, page 584.

"There can be no doubt," the commission says, "that the interstate transportation service here under consideration is common carrier service and that the rail carrier must either have authority to engage in common carriage by motor vehicle in its own right, or the motor carriers joining in such services must be authorized to act as such carriers in their individual capacities." The report noted that oral arguments on the case turned up only one instance of substitution of rail service for motor carrier service, adding that such situations should also be brought "into conformity with the tariff provisions of the act. . . . "

Giving the background of the case the commission recalled how the railroads for several years prior to the passage of the Motor Carrier Act operated the so-called substitution service in connection with their l. c. l. traffic, and covered it with the special permissions and tariff rules at issue. "On their face," the report says, "it was doubtful whether these tariff rules could be said to square with the tariff provisions of Part II (the Motor Carrier Act) as a permanent proposition and the special permissions were accordingly issued with the specific proviso that they were not to be construed as expressing any opinion as to the lawfulness of the tariff rules published pursuant thereto." In the meantime it was contemplated that the carriers would devise some new set-up, but they appear to have done "little more than seek and obtain, from time to time, extensions of the expiration date of the special provisions, the present expiration date being December 6, 1939."

After reviewing briefly the positions of

various respondent carriers the commission notes a suggestion of certain Southern and Western railroads that the substituted service might be covered "by a tariff rule and directory containing a list of participating rail, motor and water carriers. . . . " Such publication, the report adds, "could be devised so as to preserve the benefits of the substituted service without subjecting the carriers to undue expense or contravening the specific provisions of the act, and thus protect the rights of competing carriers and the general public."

"The Southern and Western rail carriers, with one exception," the report had previously said in explaining the present set-up, "utilize in this service their own trucks, subsidiary, or other motor carriers, all with proper common carrier authority, so that their substitute service presents no difficulties under the certificate provisions of the act. At the argument, they expressed willingness to confer with representatives of our Bureau of Traffic with a view to working out some simplified form of tariff publication so that their substitution service may likewise be brought in line with the tariff provisions thereof. The situation of the Eastern rail carriers and the St. Louis Southwestern Railway Company is different in that they utilize to some extent so-called contract carriers by motor vehicle in this service. They are the rail carriers who urge that they are shippers in relation to such contract motor carriers and that neither they nor such contract carriers are or should be required to act as common carriers by motor vehicle in their relation to the public. But they cannot act as common carriers by rail and shippers by motor vehicle as to identically the same service. As stated above, if the service is to be performed by motor vehicles owned or leased by the rail carrier, the latter must have authority to engage in common carriage by motor vehicle in its own right, and if the service is to be performed by motor vehicles not owned or leased by the rail carrier, the motor carrier performing the substituted service must in its individual capacity have operating rights as a common carrier by motor vehicle. The Eastern rail carriers and St. Louis Southwestern or their participating carriers should file within 30 days from the service of this report appropriate applications for authority to act as common carriers by motor vehicle in this substituted service so that we may decide, after hearing, whether such operations may be continued pending final determination of such applications."

Further along in discussing the substitution of rail service for motor service, the commission mentions the above-mentioned instance of such, explaining that the motor carrier involved had placed all its transcontinental traffic on the Chicago, Milwaukee, St. Paul & Pacific for the run between Minneapolis, Minn., and Terry, Mont., because of load restrictions in North Dakota. In this connection it warns that "where a common carrier by motor vehicle substantially abandons its over-the-road service between any points on its route it runs the risk of having its certificate revoked in whole or in part. . . . Nothing herein can or should be construed as affecting its obligations in that regard nor as affecting the requirements of the so-called 'grandfather clause' in respect of continuity of operation."

Dissents of Commissioners Lee and Mahaffie are noted, while Commissioner Splawn did not participate in the disposition of the case.

"Truck Competitive" Express Rates on the Old Colony

The Railway Express Agency on August 15 inaugurated service under "truck competitive" tariffs in the territory of the New Haven's "Old Colony" lines (Boston to Providence and eastward). The rates apply on a large list of miscellaneous commodities, moving under both class and commodity rates, which are substantially equivalent to those charged by truck lines for the same movements.

I. C. C. Examiners' Plan Would Wipe Out Frisco Stock

The Interstate Commerce Commission has received from two of its examiners, J. V. Walsh and T. K. Carpenter, a proposed plan of reorganization for the St. Louis-San Francisco which would reduce the total capitalization of the road from $388,700,000 to $240,000,000 and the fixed interest charges from $12,613,106 to $2,999,561 annually. At the same time the examiners found that the equities of the holders of both the common and preferred stock have no value and made no provision for the participation of the stockholders in the allocation of new securities.

The same treatment was accorded the general creditors, the examiners finding that there was a lack of assets free of mortgage lien, which might be given to them. The examiners proposed that the equipment obligations remain undisturbed and that the new 30-year four per cent divisional mortgage bonds be distributed in exchange, par for par, to the holders of the two issues of Kansas City, Memphis & Birmingham bonds.

Other new securities would be allocated to holders of outstanding obligations on the following basis:

Holders of Fort Scott 4s for each $1,000 bond would receive $614 of new first and general mortgage four per cent bonds, $382 of new income bonds and $274 of new preferred stock; holders of prior lien 4s would get $180 of new first and general bonds, $117 of income bonds, $239 of new preferred stock and $327 of new common stock; holders of prior lien 5s would receive $190 of new first and general bonds, $124 of income bonds, $253 of preferred stock and $346 of common stock; holders of consolidated 4½s would get $191 of new first and general bonds, $122 of income bonds, $193 of preferred stock and $170 of common stock; and holders of the consolidated 6s would receive $209 of new first and general bonds, $133 of income bonds, $211 of preferred stock and $186 of common stock.

The Reconstruction Finance Corporation and the creditor banks would receive collateral treatment for their claims. The collateral held by them would be treated as though it were outstanding and reduced to possession. The Railroad Credit Corporation would get only the Frisco equity in the marshalling and distributing fund.

The capitalization of the new company under the examiners' proposed plan would consist of $116,077,314 of debt, $61,821,296 of five per cent preferred stock and $62,102,176 of common stock. The debt would consist of $5,874,000 of undisturbed equipment trusts; $3,323,390 of Kansas City,

Canada Gets Agreed Charges Nos. 4 and 5

The Canadian National and Canadian Pacific have entered into Agreed Charge No. 4 with two oil companies, covering all carload petroleum products except crude oil between Calgary, Alta., and all destinations in Alberta and Saskatchewan under which the shippers agree to patronize the railways exclusively for such traffic (except for quantities not exceeding 1,000 gal. for distances not greater than 30 miles)—with the customary penalties should the agreement be violated. The railways will pay 1½ cents per mile for all tank cars supplied by the shippers.

Rates are based on distance and vary from 5 cents per 100 lb. for 20 miles or less, up to 46 cents at 270 miles. Beyond that distance the existing tariff rates apply.

These same railways and several short lines have entered into Agreed Charge No. 5 with three Montreal manufacturers of surgical goods and toilet preparations under which the shippers agree to ship by rail not less than 85 per cent of all their L. c. l. business to most destinations in Ontario and Quebec, with the customary penalties if they default on the agreement.

Memphis & Birmingham division first mortgage four per cent bonds; $3,182,780 of K. C., M. & B. division second mortgage 4s; $63,291,252 of first and general mortgage four per cent bonds; and $40,405,892 of income mortgage 4½ per cent bonds.

The total fixed interest debt of the new company would amount to $75,671,422 on which the annual interest charges would total $2,999,561. In addition to this, the new company would be required to create a capital fund of $1,125,000 annually. Contingent interest requirements plus an amount sufficient to pay dividends on preferred stock would bring the total fixed and contingent requirements up to $9,235,920.

The examiners also recommended that the claims of the R. F. C. and the R. C. C. for liens prior to the liens of all or part of the prior lien and consolidated mortgage bonds be denied.

The effective date of the proposed plan is January 1, 1940. In a notice accompanying the release of the proposed report, I. C. C. Secretary Bartel announced that exceptions to the proposed report must be filed in Washington and served so as to reach other counsel of record on or before September 20, 1939. Replies to exceptions may be filed and served on or before October 10, and oral argument in the case will be heard by the commission in Washington, D. C., on October 31.

Protective Services to Perishables Against Cold

Hearings in the Interstate Commerce Commission's No. 20769 proceeding involving charges for protective service to perishable freight against cold will open before Examiner F. L. Sharp on October 16 at the Hotel Morrison, Chicago. At these Chicago sessions the carriers will present their principal evidence while the commission will present data which have been prepared by it. Also, any other party in interest may then present evidence, although subsequent hearings will be held at other places for the purpose of hearing shipper witnesses.

B. & M. to Prolong Summer Junkets to Columbus Day

Breaking the traditional ending of the regular summer excursion season at Labor Day, the Boston & Maine has decided to extend operation of its every-Sunday summer excursions to include every Sunday until October 12 for the first time since their advent. The experiment in "after-school-opening" riding will cover all regular summer Sunday excursion runs between Boston, Mass., and Old Orchard Beach, Me., and Cape Anne, Mass., Gloucester, and Rockport, which are priced from $1 to $1.69 per round trip. In addition the road will continue to operate its regular fall excursions, including the Crawford Notch "Foliage Special."

Two Trains Collide at Denver

One passenger and a conductor were killed when the "Scenic Limited" of the Denver & Rio Grande Western ran into the side of the "Navajo" of the Atchison, Topeka & Santa Fe at a crossing of the two railroads in South Denver on August 12. According to a preliminary investigation, the engineman of the Scenic Limited failed to observe the block signal, which was set against him, and ran into the Navajo, which was half way over the crossing, at a speed of 30 m. p. h. The impact upset a Santa Fe coach in which the passenger and conductor were killed, overturned the Denver & Rio Grande Western locomotive and tore up several feet of track.

I. C. C. Suspends B. & M.-Me. C. Experimental Tariffs

Experimental schedules wherein the Boston & Maine and the Maine Central proposed to eliminate the first four classes in the l. c. l. rate structure and substitute for all l. c. l. a single maximum basis slightly under the present fourth-class scale have been suspended by the Interstate Commerce Commission from August 10 to March 10, 1940. The proposed experiment which was to be tried out between certain points in Northern New England was outlined in the *Railway Age* of July 15, page 119.

The suspension until March 10 applies to schedules proposed to be applicable to all-rail traffic, while those proposed for joint rail-motor traffic were suspended until November 8, the proceedings being docketed respectively as No. 4690 and No. 4691.

Rules for Household-Goods Carriers Effective October 23

The Interstate Commerce Commission has postponed from September 20 to October 23 the effective date of the rules governing practices of common carriers of household goods which were prescribed in the recent report in Ex Parte No. MC-19. In a notice announcing the postponement, I. C. C. Secretary W. P. Bartel calls attention to the fact that tariffs containing rates made on the weight basis in accordance with Rule 2 must be filed 30 days in advance of October 23 in order that the required statutory notice may be given.

The rules and regulations prescribed by the commission in this case were published in the *Railway Age* of July 29, page 198.

H. W. Clapp Gets Australian Aircraft Post

H. W. Clapp, chairman of the Victorian Railways Commission since 1920, left that position on July 1 to become general manager of aircraft construction in the newly created Department of Supply and Development. The appointment is for a term of five years. Prior to going to Australia in 1920 Mr. Clapp spent 20 years in the United States, part of the time with the General Electric Company, in charge of subway equipment electrification in New York City and on the West Jersey & Seashore electrification. Later he went with the Southern Pacific, in charge of equipment on the Oakland-Alameda electrification. The "Spirit of Progress" was developed after his last visit to this country and England. It is known as the Australian crack train, and is referred to as the premier train of the southern hemisphere.

Freight Car Loadings

Loading of revenue freight for the week ended August 12 totaled 665,197 cars, the Association of American Railroads announced on August 17. This was an increase of 4,061 cars, or six-tenths of one per cent, above the preceding week, an increase of 75,629 cars, or 12.8 per cent, above the corresponding week last year, but a decrease of 108,585 cars, or 14 per cent, below the comparable 1937 week.

As reported in last week's issue, the loadings for the previous week ended August 5 totaled 661,136 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For Week Ended Saturday, August 5, 1939

Districts	1939	1938	1937
Eastern	133,751	114,509	149,792
Allegheny	125,840	104,299	157,429
Pocahontas	52,965	40,270	51,748
Southern	94,212	85,365	99,995
Northwestern ..	109,995	92,744	133,949
Central Western	100,443	101,734	116,363
Southwestern ..	43,930	45,141	56,906
Total Western Districts	254,368	239,619	307,218
Total All Roads	661,136	584,062	766,182
Commodities			
Grain and grain products	42,270	51,514	45,936
Live stock	11,158	11,276	13,505
Coal	115,551	90,927	111,575
Coke	6,725	4,487	9,645
Forest products	31,933	28,892	40,960
Ore	44,890	22,998	75,561
Merchandise l.c.l.	154,657	149,245	168,598
Miscellaneous .	253,952	224,723	300,402
August 5.....	661,136	584,062	766,182
July 29	659,764	588,697	779,091
July 22	656,341	580,818	767,470
July 15	673,812	602,445	766,384
July 8	539,109	500,981	678,958
Cumulative Total, 31 Weeks ...	18,553,284	17,087,635	22,798,260

In Canada.—Carloadings for the week ended August 5 totaled 45,320, as compared with 45,588 in the previous week and 40,306 a year ago, according to the statement of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Aug. 5, 1939	45,320	19,639
July 29, 1939	45,588	19,422
July 22, 1939	47,657	19,608
Aug. 6, 1938	40,306	19,577
Cumulative Totals for Canada:		
Aug. 5, 1939	1,344,606	673,709
Aug. 6, 1938	1,354,925	632,340
Aug. 7, 1937	1,483,283	844,221

July Operating Revenues 8.9 Per Cent Above July, 1938

Preliminary reports from 92 Class I railroads, representing 81.3 per cent of total operating revenues, made public today by the Association of American Railroads, show that these railroads, in July, had estimated operating revenues amounting to $265,253,346 compared with $243,624,962 in the same month of 1938, and $368,989,094

in the same month of 1930. The July gross was 8.9 per cent above July, 1938, but 28.1 per cent below July, 1930.

Freight revenues of the Class I roads in July, amounted to $210,091,963 compared with $192,546,173 in July, 1938, and $281,304,323 in July, 1930—9.1 per cent above the former, but 25.3 per cent below the same month in 1930. Passenger revenues totaled $34,084,007 compared with $31,486,314 in July, 1938, and $54,882,460 in July, 1930—8.3 per cent above the former, but 37.9 per cent below the same month in 1930.

For Eradicating R. R. Rats

The West Disinfecting Company, New York, announces the sale of a new raticide carrying the trade name "Rodite." Characterized as a prepared cereal cracker containing a taste-lure for rodents and a special highly-concentrated extract of red squill, it is claimed that the product has been made more attractive to rodents than preparations of ordinary red squill powder; that the cracker is relatively harmless to human beings and domestic animals but highly poisonous to rodents; and, further, that when consumed, the suffocating action of Rodite compels rodents to seek the open air to die.

Status of Railroad Retirement Account

A total of $21,900,000 was transferred to the Railroad Retirement Account in July, according to the United States Treasury statement, dated July 31. During the month of July, $1,900,000 was invested in three per cent Treasury notes.

Tax collections under the Carriers' Taxing Act amounted to $494,831 in July, bringing the total collections to date to $259,792,272. Of this amount $109,256,540 was collected in the fiscal year ending June 30, 1939 and the balance in the previous year.

The Treasury statement also showed that the Railroad Unemployment Insurance Account was credited during July with an advance of $15,000,000. This advance was made under Section 10(d) of the Railroad Unemployment Insurance Act, which directs the Secretary of the Treasury "to advance to the credit of the account such sums, but not more than $25,000,000 as the Retirement Board requests for the purpose of paying benefits." These sums are to be repaid from the account on January 1, 1941 or at an earlier time if the Board so agrees with the Secretary of the Treasury.

Status of Unemployment Insurance Act Benefit Payments

A total of 26,465 benefit payments under the Railroad Unemployment Insurance Act, amounting to $390,321 had been certified by August 4, according to the "Weekly Review" of the Railroad Retirement Board for August 12. This includes all certifications for benefits made since the week beginning July 17, the first week in which payments were made. The Board goes on to point out that the average certification amounted to $14.75. During the week ended August 4, 8,711 certifications were made amounting to $138,412 compared with 12,375 certifications amounting to $172,333 during the week ended July 29. The decline in the number of benefit payments from the previous week is in part due to the fact that the bulk of the claims were received toward the end of the week, allowing no time for processing, according to the Board's statement.

During the week ended August 4, 5,899 additional applications for certificates of benefit rights under the Act were received from unemployed railroad workers, about the same number as during the preceding week. In the same period, 5,875 certificates of benefit rights were issued, a larger number than the previous week. Since the beginning of operation, a total of 83,169 applications for certificates of benefit rights have been received, and 78,474 certificates were issued.

President Approves Liability Act Amendments

President Roosevelt has signed S.1708 which amends the law relating to the liability of railroads for injuries to their employees along lines favored by railroad labor. The measure, which was finally enacted on August 4 with the adoption of a conference report reconciling differing House and Senate versions, was erroneously listed among the bills left pending in the review of the Congressional session which appeared in last week's issue.

Among other things the amendments provide that in actions brought under the Employers' Liability Act, the so-called "assumption - of - risk - of - employment" defense will not be available to the carrier where an employee's injury or death results in whole or in part from the negligence of the carrier. Another provision makes it a criminal offense to coerce, discipline or discharge an employee in an effort to prevent or punish him for voluntarily furnishing information to a person in interest with reference to the facts incident to the death or injury of any railroad employee; the foregoing with the proviso that nothing in it shall be construed "to void any contract, rule, or regulation with respect to any information contained in the files of the carrier, or other privileged or confidential reports." The amendments also undertake to broaden the scope of the Liability Act so as to include within its provisions employees of common carriers who, while ordinarily engaged in the transportation of interstate commerce, may be, at the time of the injury, temporarily divorced therefrom and engaged in intrastate operations.

"Labor," organ of the railroad brotherhoods, hailed the passage of the bill as a victory in "a three-year battle to protect railmen from legal hair-splitting in personal damage suits."

Demurrage and Storage Rules Will Be Liberalized

Amendment of the Demurrage and Storage Rules "with a view of aiding the railroads to hold or to encourage the return of traffic to the rails" was announced on August 15 by the Car Service Division of the Association of American Railroads. The amendments, which become effective on October 1, liberalize the existing rules so as to furnish shippers and receivers of freight greater leeway in the time allowed for loading or unloading freight, or claiming less-than-carload lot freight at destination, and also to encourage the loading of freight cars more nearly to capacity.

The changes, made at the suggestion of the Regional Shippers Advisory Boards, the National Industrial Traffic League, and individual shippers and receivers of freight, have been approved by the General Committee of the Operating-Transportation Division of this Association.

Among the amendments made was one which allows a receiver of l. c. l. five days in which to claim the freight after being received at destination before it is subject to storage charges. The former rule permitted only four days. Another change permits a consignee of l. c. l., who is located from 10 to 30 miles from the receiving freight station, 10 days in which to claim the shipment instead of five days as permitted under the old rule.

Under the old rule, when an empty car was delivered to a shipper for loading or a loaded car was delivered to the receiver for unloading, the railroads allowed two days free time for this work to be performed. If the work was not completed in that time, then four days additional were allowed in which a regular demurrage rate of $2.20 per day was charged. Beginning on the seventh day, if the loading or unloading had not been completed, then a penalty rate of $5.50 for each additional day the car was held was charged. The penalty rate has now been reduced from $5.50 to $3.30. Another change makes provision for additional time allowance without charge when weather conditions delay the loading of a car.

In an effort to induce shippers to load freight cars more nearly to capacity, the existing rules also have been amended so as to allow 72 hours free time for the loading and unloading of freight cars containing twice or more than twice the minimum weight prescribed by tariff.

Rates on Sugar Between Southern and Official Territories

Interterritorial rates on sugar from certain points in Southern territory to specified destinations in Official territory and from New York to certain Southern territory points have been found unreasonable and unduly prejudicial in a recent decision wherein the Interstate Commerce Commission prescribes new interterritorial rates between the points involved on the same basis as the present intraterritorial rates in both territories. The new interterritorial basis will thus be approximately 22 per cent of the Southern territory first class scale as compared with approximately 26.5 per cent at present.

Rates involved in the proceeding (I. & S. Docket No. 4096 and complaint cases linked therewith) were the all-rail rates on sugar from New Orleans, La., and Reserve to points in Eastern Indiana, Ohio, Southern Peninsula of Michigan, and Kentucky and West Virginia, and from Port

Wentworth, Ga., to the same points and points in Virginia; also, the all-rail rates on sugar from New York to points in North Carolina, South Carolina, Eastern Tennessee, Kentucky and Virginia. Meanwhile the same decision found not unreasonable or unduly prejudicial the water-rail rates on sugar, in carloads, from New York to the same Southern territory points; and not unduly prejudicial or preferential the practices of railroads in Southern and Official territories with respect to sugar stored in transit.

The dissent of Commissioner Mahaffie was noted, while Commissioner Splawn concurred "in the result." Commissioner Miller did not participate in the case.

Hoboken Manufacturers' Divisions on Seatrain Traffic

The Interstate Commerce Commission has dismissed a complaint of the Hoboken Manufacturers' Railroad Company with a finding that the complainant's divisions on joint class and commodity rates on traffic interchanged with Seatrain Lines, Inc., are not unjust, unreasonable, inequitable or unduly prejudicial. The decision follows the recommended findings of Examiner E. J. Hoy's proposed report, reviewed in the *Railway Age* of May 6, page 793, wherein it was pointed out how the complaint arose when connections of the Hoboken refused to accord it a $1.35 per ton division on Seatrain traffic moving on lighterage-free rates, the defendants' contention being that the car-carrying vessel's operation precluded the necessity for the Hoboken's loading or unloading such traffic, and thus all Seatrain tonnage should bring the Hoboken only the 60-cents-per-ton division received by it without complaint on non-lighterage-free freight.

Since the complaint was filed on December 31, 1936, the above-mentioned divisions figures of $1.35 per ton and 60 cents per ton have been increased slightly as a result of the Ex Parte 123 decision.

The commission's report notes that Commissioners Mahaffie and Caskie "concur in the result;" while Commissioner Splawn dissented. The majority, Mr. Splawn said, "in effect divert to defendants the economies achieved by Seatrain, thus indirectly depriving the latter of its property." The majority report had previously pointed out that all of Hoboken's capital stock, except five directors' qualifying shares, is owned by Seatrain.

President Vetoes Rivers and Harbors Surveys Bill

President Roosevelt on August 11 vetoed H. R. 7411 which would have authorized preliminary examinations and surveys of 108 rivers and harbors projects for navigation purposes. As pointed out in the *Railway Age* of August 5, page 226, passage of this survey bill came as the aftermath of the Senate commerce committee's decision to postpone until next session consideration of H. R. 6264, the rivers and harbors bill which passed the House carrying authorizations totaling $83,000,000, but which the Senate committee reported as a record-breaking $407,855,600 measure.

In his "Memorandum of Disapproval" the President recalled that he had already signed one bill for the examination of a large number of additional river and harbor and flood control projects. "These projects, together with many other projects which have been examined and approved by the Army Engineers," he went on, "will take a long time to complete, and I think it is time to go more slowly in the examination and authorization of these river and harbor projects."

It has always seemed to the President that such projects "should be examined and authorized primarily on the basis of the greatest good to the greatest number of people;" and while he understands "the urge to get federal money for expenditure in every Congressional district," he nevertheless believes, as he has "often recommended," that "instead of taking a bite here and a bite there, there should be a well-considered and well-rounded plan for projects to be undertaken in a definite order of human and national preference and desirability instead of putting them only on a local geographical basis." The President also objected to the bill's lack of any express provision recognizing the authority of the Federal Power Commission relative to making investigations and reports regarding potential power development and similar matters.

British Roads Grant 45-Shilling Wage; Won't Go Higher

The general managers of the four main-line British railroads informed employees' representatives on August 14 that the roads' financial status does not justify a further increase in the minimum weekly wage above the 45-shilling base rate granted late in July. In answer to demands of the three railroad unions for pay increases, the companies' representatives, at a meeting held with the union conferees in London on July 28, announced that their roads had agreed to establish a minimum weekly base wage of 45 shillings (approx. $10.80), applicable to all adult male employees in railway service except shopmen (who are not included in the so-called "conciliation" grades) effective the first full pay period thereafter. This raise in minimum base rate from 41 shillings per week to 45 shillings immediately benefited over 15,000 employees, it is estimated by the Railway Gazette, and will affect a much larger group, should a fall in the cost of living indices lower the present *current* rates of pay. [Current rates are related to base rates in proportion to the relative cost-of-living levels.—Ed.]

Upon receipt of this announcement the executive committee of the Associated Society of Locomotive Engineers & Firemen passed a resolution declaring that "no part of the claims submitted by this society has been conceded, either by the National Tribunal [Railway Staff National Tribunal, senior deliberative body in the machinery for consideration of wages and working conditions] or subsequently by direct negotiations with the railway general managers." The committee met again on August 1 and decided on a strike action to enforce their demands, but set no date for such action. Latest reports have it that the strike has been postponed indefinitely, pending further negotiations.

The executive committee of the National Union of Railwaymen made no statement at the time of the announcement of the new minimum, but in a special meeting on August 11 decided to sound out the railway managements on the possibility of a further raise in the weekly minimum to 50 shillings, which base rate has been an aim of the N. U. R. for a long time. The answer was no—for the present at least.

Competitive Produce Terminals Investigated

An investigation of competitive produce terminals of railroads at Denver, Colo., was begun by the Interstate Commerce Commission, when hearings were held before Commissioner Porter and examiner Koch at Denver on August 7 to 10. The purpose of the investigation is to determine whether there has been unnecessary duplication of facilities in the construction of two terminals costing $1,000,000 each.

On September 9, 1932, the market committee of the Denver Planning Commission recommended that the city construct a produce terminal at Wazee Street, but interested parties failed to agree upon the site. In 1938, the city of Denver applied for a P. W. A. loan for the construction of a produce terminal at Jerome Park, and in September of that year the city council officially selected Jerome Park as the site for the produce terminal. Other interests advocated that the terminal be located at Denargo. In January, 1939, the Union Pacific began the construction of its terminal at Broadway and Brighton boulevard, and placed it in operation during the first part of July. The Atchison, Topeka & Santa Fe, the Chicago, Burlington & Quincy, the Denver & Rio Grande Western, the Colorado & Southern and the Chicago, Rock Island & Pacific on March 18, 1939, began the construction of a second terminal on Wazee street and opened it on August 1.

Witnesses for the five associated railroads using the Wazee market justified the construction of that terminal on the ground that the location of the Union Pacific terminal makes it impossible for their lines to use it from a competitive standpoint and that since their lines handle 72 per cent of all carload fruit and vegetables unloaded in Denver, they were compelled to build their own co-operative market to retain their business.

J. L. Haugh, vice-president of the Union Pacific, described the steps leading up to a final decision by that railroad to construct a produce terminal market in Denver after the city had planned to build a new city market at Jerome Park. He stated that the location of the market at Jerome Park would have resulted in a loss of about 2,000 cars of produce a year by his road, and explained that the Union Pacific felt forced to take action to protect its interests. On cross examination by J. P. James, vice-president of the Burlington, Mr. Haugh also stated that the Union Pacific expects to increase its business by 1,000 cars a year through the operation of a market at the Denargo site.

Supply Trade

Kenneth J. Burns, district sales manager of the Youngstown Sheet & Tube Company, Youngstown, Ohio, has been appointed district sales manager of the **Inland Steel Company,** with headquarters in its newly opened district sales office at Cincinnati, Ohio.

G. R. Prout, acting manager of the southwestern district for the **General Electric Company's** industrial department, has been appointed manager of sales of industrial control, and **W. T. Darcy,** assistant to **W. C. Yates,** manager of the control and renewal parts division of General Electric's industrial department, has been appointed manager of sales of renewal parts; both with headquarters at Schenectady, N. Y., effective September 1.

Charles A. Dostal, since 1931 manager of the Northwestern district merchandising division of the **Westinghouse Electric & Manufacturing Company,** with headquarters at Chicago, has been appointed manager of sales of the Pacific Coast district, with headquarters at San Francisco, Cal. This appointment will relieve Vice-President **William R. Marshall,** who has been in charge of the district since 1928, of managerial duties incident to his position, so that he may devote his full time to the sales interests of the company in this district.

The General American Transportation Corporation has acquired the bus division of **Gar Woods Industries, Inc.,** Detroit, Mich., and will operate it as its motor coach division, for the manufacture of a rear-engined streamlined motor bus. Machinery will be moved to the Hegewisch, Ill., plant of the Pressed Steel Car Company, which is being modernized to handle progressive assembly production. **H. Sydney Snodgrass,** manager of the motor coach division of the Gar Wood Industries, Inc., has been appointed to a similar position in the newly formed motor coach division of General American.

OBITUARY

Joseph Leidenger who retired as vice-president of the Dayton Manufacturing Company in 1930, and for 20 years was New York representative of the company, died on August 11 at the New York Hospital after a long illness. Mr. Leidenger was 80 years old at the time of his death.

TRADE PUBLICATION

S. F.-Oakland Bay Bridge Signaling.—The General Railway Signal Company has issued Bulletin 173 covering railway signaling on the San Francisco-Oakland Bay bridge. This booklet of 45 pages explains in detail the entrance-exit interlocking plants as well as the cab signaling and automatic train control systems installed on this bridge property and terminus. Reproductions of diagrams and photographs are used profusely to illustrate the text.

Equipment and Supplies

LOCOMOTIVES

The Chilean State Railways will issue inquiries for seven electric locomotives of the B-B type. H. Guzman Donoso, purchasing agent at New York.

The Maine Central has placed an order with the American Locomotive Company for two 600-hp. Diesel-electric switching locomotives for use at Waterville, Maine, and Bangor.

The United States Navy Department has ordered one 50-ton Diesel-electric locomotive from the Atlas Car & Manufacturing Co. In the *Railway Age* of July 22, page 161, this builder was reported as having submitted the lowest bid for the locomotive.

FREIGHT CARS

The United States Navy Department, Bureau of Supplies and Accounts, is asking for bids on August 22, for one or two steel box cars, wood lined, 40 ft. 6 in. long, of 50 tons' capacity.

The Tennessee Coal, Iron & Railroad Company has ordered ore cars of 70 tons' capacity from the Pullman-Standard Car Manufacturing Company. Inquiry for this equipment was reported in the *Railway Age* of August 12, page 267.

PASSENGER CARS

The New York, Susquehanna & Western has applied to the federal court in New Jersey for permission to purchase two streamlined high-speed air-conditioned rail-motor cars, for service between New York and Paterson, N. J., and Butler.

IRON AND STEEL

The Monongahela has ordered 1,000 tons of rails from the Carnegie-Illinois Steel Corporation.

The Atchison, Topeka & Santa Fe has ordered 395 tons of structural steel for a bridge at Cajon, Cal., from the American Bridge Company.

The Great Northern has ordered 5,500 tons of rails from the Carnegie-Illinois Steel Corporation. This tonnage is in addition to the 10,000 tons placed with various mills in May.

Pennsylvania-Reading Seashore Lines.—Separate bids will be received by E. J. Lamneck, purchasing agent of this road, room 415, at 15 North 32nd street, Philadelphia, Pa., for the supplies to be used in connection with the elimination of grade crossing work at Absecon, N. J., all bids to be received until 12 o'clock noon, (e.s.t.) August 30, under P. W. A. project 1330-F. Order No. 43 calls for rail, frogs, switches, joint bars and tie plates. Order No. 44 calls for track bolts, spikes, anti-creepers and ties. Order No. 49 calls for rail joints.

Financial

Colorado & Southern.—*Intervention Granted.*—The Railway Labor Executives' Association has been authorized by Division 4 of the Interstate Commerce Commission to intervene in the case of the application of this company for authority to lease the properties owned and operated by the Fort Worth & Denver City and the Wichita Valley and for authority to assume liability in respect of a note of the Fort Worth & Denver City.

Montana, Wyoming & Southern.—*Plan of Readjustment.*—This company has filed with the Interstate Commerce Commission the first application for approval of a plan of adjustment under the provisions of the recently-enacted Chandler Act. In its petition, the company asks commission sanction of a plan for an extension of the time of payment of the balance of the principal of and for the modification of interest charges on its $457,000 of first mortgage five per cent gold bonds maturing September 1, 1939.

Under the proposed plan the road will pay $150 in cash on account of the principal amount of each $1,000 bond outstanding. The time of payment of the principal of the bonds, as reduced, will be extended to September 1, 1949, without any sinking fund provision, with interest on the bonds, as reduced, to be fixed at three per cent annually, plus non-cumulative contingent interest up to but not exceeding two per cent in any year, dependent upon earnings. The bonds are to be redeemable at the option of the company in whole or in part, at any time at their principal amount, as reduced, plus accrued and unpaid fixed interest thereon to the date fixed for redemption at the rate of three per cent.

Okolona, Houston & Calhoun City.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon, as to interstate and foreign commerce, its entire line of railroad extending from Okolona, Miss., to Calhoun City, 37.3 miles. The abandonment was made conditional upon the company agreeing to sell the line, or any part thereof, to any person or persons offering within 40 days to purchase it for continued operation at a price not less than the fair salvage value.

Pennsylvania.—*Examiner Recommends Denial of Abandonment Application.*—Examiner Jerome K. Lyle has recommended in a proposed report that the Interstate Commerce Commission's Division 4 deny the application of this road and the Pennsylvania, Ohio & Detroit (of which P. R. R. is lessee) for authority to abandon a 17-mile segment of the P. O. & D.'s Walhonding branch between Loudonville, Ohio, and Brink Haven. The examiner finds evidence of record indicating that "the loss of traffic on the branch within the past two years has been caused largely by the failure of the applicants to perform their obligations to the public;" since the shippers located thereon "are ready and willing to

give the line a substantial volume of traffic if they are afforded the opportunity to do so." The abandonment, Mr. Lyle adds, "would impose an unnecessary and undue hardship upon shippers dependent thereon for their transportation, while the loss, if any, which would be imposed upon the applicants by continued operation is not sufficient to impose an undue burden on them or upon interstate commerce."

RIO GRANDE SOUTHERN.—*R. F. C. Loan.*—This company has applied to the Reconstruction Finance Corporation for a loan and to the Interstate Commerce Commission for the approval of a $50,000 loan to be used for the rehabilitation of the road.

SOUTHERN PACIFIC.—*Abandonment.*—This road has been authorized by the Interstate Commerce Commission, Division 4, to abandon a 2.88-mile segment of its Pantagonia branch, extending from Pantagonia, Ariz., to Flux.

SOUTHERN PACIFIC.—*Abandonment.*—Division 4 of the Interstate Commerce Commission, at this company's request, has dismissed its application for authority to abandon the operation over a line of the Coos Bay Lumber Company between Myrtle Point, Ore., and Powers.

SOUTHERN PACIFIC.—*Equipment Trust Certificates.*—This company's $7,575,000 equipment trust issue, details of which were given in last week's issue, has been sold at 101.41 and accrued dividends to the First Boston Corporation, acting on behalf of itself and F. S. Moseley & Co.; Kean, Taylor & Co.; and R. W. Pressprich & Co., making the average annual cost to the company approximately 2.29 per cent.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—*Bond Issue Awarded.*—The $7,000,000 refunding first-mortgage bond issue of this road, whose offering on the basis of competitive bids was announced in last week's issue, has been awarded to a group headed by Halsey, Stuart & Co., New York, on a bid of 100.6577 for the obligations at a 3⅜ per cent rate. The same group also offered an alternate bid of 102.27 for the issue at 3½ per cent.

UNION PACIFIC.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has dismissed for want of jurisdiction the application of this road for authority to abandon its so-called Grass Creek branch, extending from Grass Creek Junction, Utah, to a point near Grass Creek, 5.6 miles. The dismissal for want of jurisdiction was based on a holding that the line involved is a spur, falling within the exemption provisions of the Interstate Commerce Act's section 1(22).

Dividends Declared

Boston & Albany.—$2.00, payable September 30 to holders of record August 31.

Virginian.—$2.00, payable September 26 to holders of record September 16.

Average Prices of Stocks and Bonds

	Aug. 15	Last week	Last year
Average price of 20 representative railway stocks..	29.56	29.43	28.
Average price of 20 representative railway bonds..	59.58	59.98	59.88

Railway Officers

Charles P. Couch Elected President of the Kansas City Southern

Charles P. Couch, president of the Louisiana & Arkansas, with headquarters at Shreveport, La., has been elected also president of the Kansas City Southern to succeed his brother, Harvey C. Couch, who has been elected chairman of the board of the Louisiana & Arkansas and who will continue as chairman of the board and chairman of the executive committee of the K. C. S. William N. Deramus, executive vice-president, and Guy B. Wood, vice-president in charge of traffic, of the Kansas City Southern, have been elected to similar posts on the L. & A., and George E. Schnitzer, vice-president of the L. & A., has been elected also a vice-president of the K. C. S. These appointments, which are subject to the approval of the Interstate Commerce Commission, are another step in the unification of the K. C. S. and the L. & A., which was approved by the I. C. C. on May 3.

Charles P. Couch

Under the leadership of Charles P. Couch, who in 1930 became executive vice-president, and in 1932 president of the Louisiana & Arkansas, this road has paid its fixed charges through the depression years, one of the few railroads of similar size in the Southwest with such a record, attesting in no small way to the ability of Mr. Couch as a railroad executive.

Charles Peter Couch was born in Calhoun, Columbia county, Arkansas, on August 16, 1890. In 1906, at the age of 16, Mr. Couch left home for Gibsland, La., where his brother Harvey had headquarters for his telephone company. For about a year he worked as fireman on the Louisiana & North West. Then he joined his brother Harvey in the telephone business, starting at digging post holes. Successively he became a "straw boss," foreman and superintendent of construction, building hundreds of miles of line in Arkansas, Louisiana, Oklahoma and Texas.

When the Couches disposed of the telephone system they had built up, they retained the creosoting plant they had constructed to treat the poles they used. C. P. Couch was foreman of this plant from 1911 to 1914, when he joined his brother in the development of the interconnected power system that is now the Arkansas Power & Light Company, and which is tied in with the systems of the Louisiana Power & Light Company and the Mississippi Power & Light Company, also established by the Couches and associates.

As superintendent of construction for the power company in Arkansas, Mr. Couch built all lines constructed by the company from 1914 to 1920. Taken out of the construction department in 1921, because of the slackening of building as a result of economic conditions, Mr. Couch was appointed manager of the Arkadelphia-Malvern district of the power company—these two towns being connected by the first transmission line in Arkansas, and which he had built.

In 1923, he was sent to Mississippi as vice-president and general manager of the Mississippi Power & Light Company. In four years he acquired for his company more than 100 plants in local communities. A transmission system linking together communities in a large part of the state was developed.

When the Southern Ice & Utilities Company was organized in 1927, to operate ice plants in Arkansas, Texas, Oklahoma and Louisiana, C. P. Couch became its vice-president and general manager. He directed the affairs of this company until April, 1930, when he resigned to become vice-president and general manager of the Louisiana & Arkansas and the Louisiana, Arkansas & Texas, a subsidiary. Later he became president of the L. A. & T. and in June, 1932, he was elected president of the L. & A., with headquarters at Shreveport. Mr. Couch has retained his interests in the utility business as a director on the boards of a number of companies and has been connected also in a similar manner with banking and insurance institutions.

EXECUTIVE

C. M. Self, terminal trainmaster on the Southern at Cincinnati, Ohio, has been appointed executive assistant of the Chicago, Indianapolis & Louisville (Monon), with headquarters at Chicago, a newly created position.

At a meeting of the board of directors of the Kansas City Southern on August 11, at which unification of the executive and operating departments of that road and the Louisiana & Arkansas into one system was completed, the following changes

Continued on next left-hand page

IF IT'S SPEED
you want . . .

. . . steam will give it

While speed is the essence of modern train operation, speed alone is not enough.

Your motive power must furnish the desired speed at low operative cost plus moderate maintenance and reasonable initial investment.

In any service, today's high standard of train operation can be maintained at the lowest possible cost only by utilization of modern steam power.

LIMA LOCOMOTIVE WORKS INCORPORATED

LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO

were made: **C. P. Couch,** president of the Louisiana & Arkansas was elected also president and director of the Kansas City Southern (as is reported more fully elsewhere in these pages). **Harvey Couch,** who upon his resignation as president of the K. C. S. became chairman of the board of that road, has also been elected chairman of the board of the Louisiana & Arkansas. **William N. Deramus,** executive vice-president of the K. C. S., and **Guy B. Wood,** vice-president in charge of traffic of the same road, have been elected to similar positions on the Louisiana & Arkansas. **George Schnitzer,** vice-president of the L. & A., has been appointed also a vice-president of the K. C. S.

Rowland L. Williams, chief executive officer of the Chicago & North Western, with headquarters at Chicago, has been elected also president of the Chicago, St. Paul, Minneapolis & Omaha, with headquarters at Chicago.

Harry J. McDonald, whose promotion to assistant to the executive vice-president of the Chesapeake & Ohio was announced in the *Railway Age* of August 12, was born at Chilesburg, Ky., on October 22, 1890, and entered railway service on October 22, 1910, as a clerk on the C. & O. at Lexington, Ky. On October 22, 1916, he was appointed fuel inspector at Huntington, W. Va., and on December 1, 1918, he was made fuel clerk at that point. Mr. McDonald was promoted to allotment commissioner on November 1, 1922, and to chief clerk to the assistant superintendent of transportation at Huntington on August 1, 1923. He resigned on March 21, 1932, to enter other employment, but returned to the C. & O. on January 1, 1934, as chief clerk to the assistant to the president. On April 1, 1937, Mr. McDonald was appointed office manager to the assistant to the president, the position he held until his recent promotion.

Carl L. Jellinghaus, whose appointment as assistant to the president of the New York Central was noted in the *Railway Age* of August 12, entered the service of the New York Central on April 3, 1914. He held various positions in the operating

Carl L. Jellinghaus

and transportation departments until December 16, 1926, when he was appointed superintendent of property protection. Mr. Jellinghaus held the latter position until March 1, 1936, when he was appointed executive secretary to the president, the position he held until his recent appointment as assistant to the president.

F. W. McCullough, whose appointment as assistant to vice-president Chesapeake & Ohio, with headquarters at Huntington, W. Va., was announced in the *Railway Age* of August 12, was born in Huntington and educated in the public schools there, at the Bingham Military school, Asheville, N. C., and at West Virginia university. He entered the law profession and first saw public service as first assistant U. S. attorney for the southern district of West Virginia from 1913 to 1921. He returned to private law practice for a time, returning to government service in 1926 as treasurer of the state Board of Control, administering all state institutions. In 1931 he again returned to private law practice. Shortly thereafter he became a member of the legal division of the Public Works Administration in Washington, D. C., leaving upon inauguration of N. R. A. to serve as compliance director for West Virginia. Upon invali-

(c) Harris & Ewing

F. W. McCullough

dation of N. R. A. by the Supreme Court, Mr. McCullough became state director of the National Emergency Council and still later state administrator for the Works Progress Administration. In May, 1937, he was appointed secretary of the newly-created National Bituminous Coal Commission. Upon transference of the duties of the commission to the Department of the Interior, Mr. McCullough resigned, effective July 1, and received his C. & O. appointment, effective July 22.

Harry P. Allstrand, principal assistant superintendent of motive power and machinery of the Chicago & North Western, has been promoted to assistant to the chief executive officer, a newly created position, with headquarters as before at Chicago, and **Edred B. Hall,** general superintendent of motive power and machinery, has been appointed chief mechanical officer, with jurisdiction over all locomotive and car matters, with headquarters as before at Chicago. **Walter E. Dunham,** general superintendent of the car department, with headquarters at Chicago, has been appointed superintendent of the car department with the same headquarters. Mr. Allstrand was born at Council Bluffs, Iowa, on September 8, 1885, and graduated from

Harry P. Allstrand

Iowa State College in 1913. He entered railway service in 1903 as a machinist apprentice on the North Western at Missouri Valley, Iowa, and in 1907 he was promoted to machinist and later to foreman at that point. In 1909, he left railway service to attend college at Ames, Iowa, returning to the North Western after graduation in 1913, as a roundhouse foreman at Clinton, Iowa, later being transferred to South Pekin, Ill., Proviso, Ill., and East Clinton, Iowa. Mr. Allstrand was advanced to division foreman at Chaldron, Neb., in 1918, and in 1919, he was promoted to assistant master mechanic at that point and later served as master mechanic at Chaldron and at Eagle Grove, Iowa, Belle Plaine and Boone. In 1924, he was appointed efficiency supervisor, with headquarters at Chicago, and in 1926, he was advanced to assistant superintendent of motive power and machinery, with the same headquarters. Mr. Allstrand was promoted to principal assistant superintendent of motive power and machinery in 1929, the position he held until his recent promotion. Mr. Allstrand was president of the Western Railway Club in Chicago, in 1929-30.

OPERATING

Blake A. Latta, superintendent of express on the Canadian National, with headquarters at Edmonton, Alta, has been promoted to general superintendent of express, Western region, with headquarters at Winnipeg, Man., succeeding **C. A. Cunningham,** who has retired. **W. C. Cranston,** superintendent of express, with headquarters at Winnipeg, has been transferred to Edmonton, relieving Mr. Latta and **S. E. Brennan,** general agent at Winnipeg, has been promoted to superintendent of express at that point, replacing Mr. Cranston.

Mr. Cunningham was born in Malmur, Ont., in 1873, and entered railway service on the Northern Pacific in Manitoba (later taken over by the Canadian Northern and now part of the Canadian National) at Winnipeg in 1892. In 1901, he was transferred to St. Paul, Minn., and in 1906, he returned to Winnipeg as chief clerk in the express department. He was advanced

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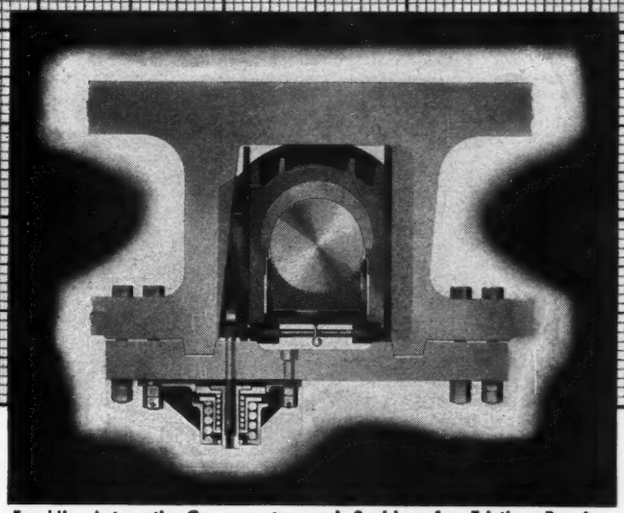
A QUICK WAY TO LOWER COSTS



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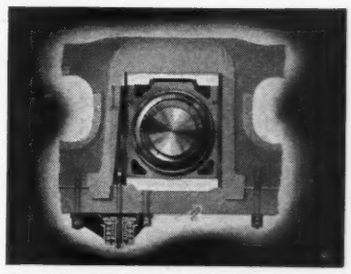
Wherever they are used, Franklin Automatic Compensators and Snubbers have lowered maintenance . . . on driving box bearings . . . on rod bushings . . . and in reduced tire-turnings. » » » Convert your existing driving boxes and obtain easier riding and increased availability for service. Do it automatically and perfectly.



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The close tolerances essential to efficient Booster operation call for genuine repair parts made by Franklin.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK CHICAGO MONTREAL

through various positions in that department at Winnipeg and in 1921, he was promoted to general superintendent, the position he held at the time of his retirement.

J. R. Strother, chief clerk to the vice-president on the Canadian Pacific at Winnipeg, Man., has been promoted to assistant superintendent at Macleod, Alta., succeeding **N. A. Link,** who has been transferred to Wilkie, Sask. Mr. Link relieves **G. L. Phillips,** who has been transferred to the Vancouver Terminals, Vancouver, B. C., replacing **G. L. McCrea,** who has retired.

Frank B. Birthright, whose appointment as superintendent, Charleston division, Southern, with headquarters at Charleston, S. C., was announced in the *Railway Age* of July 22, was born in Raleigh, N. C., on June 14, 1900. He attended public school in Washington, D. C., and received his higher education at the U. S. Naval Academy, graduating in 1922. Thereupon he was commissioned in the U. S. Marine Corps, serving for a period of four years, including two spent in connection with military occupation of Haiti.

In 1926 Mr. Birthright resigned from the corps and entered railway service as a section laborer on the Washington division of the Southern, a few months later becoming bridge laborer on the Appalachia division. He was appointed assistant trainmaster, Knoxville division, on July 1, 1927, and trainmaster, Coster division, on August 1, 1930. In June of the following year Mr. Birthright went to the Charleston division as assistant trainmaster, becoming trainmaster a month later. On August 1, 1936, he was transferred to the same post on the Columbia division and on October 22, 1937, moved to the North Carolina line of the Danville division in the same capacity, which position he retained until his recent appointment as superintendent, Charleston division.

FINANCIAL, LEGAL AND ACCOUNTING

C. W. Ruffner has been elected treasurer of the Burlington-Rock Island, with headquarters at Houston, Tex.

C. B. Marshall has been appointed auditor of freight receipts of the Texas & Pacific, with headquarters at Dallas, Tex., succeeding **D. W. Beddo,** deceased.

H. L. Miller has been appointed auditor of overcharge claims of the Louisville & Nashville, at Louisville, Ky., succeeding **J. F. Seger.**

E. T. Meriwether has been appointed acting treasurer of the Kentucky & Indiana Terminal, with headquarters at Louisville, Ky.

TRAFFIC

E. P. McGahey, general agent on the Ann Arbor at Green Bay, Wis., has been promoted to general freight and passenger agent, with headquarters at Detroit, Mich., succeeding **R. V. Oldham,** whose resignation was announced in the *Railway Age* of July 22. **J. A. Leonard** has been appointed assistant general freight agent at Detroit, and **P. A. Servais,** commercial agent at Owosso, Mich., has been promoted to general agent at Green Bay, replacing Mr. McGahey.

A. Cotsworth, Jr., passenger traffic manager of the Chicago, Burlington & Quincy, has been appointed also passenger traffic manager of the Colorado & Southern, the Ft. Worth & Denver City and the Wichita Valley, with headquarters as before at Chicago.

M. C. Burton, general freight and passenger agent of the Panhandle & Santa Fe, with headquarters at Amarillo, Tex., has been appointed general freight agent of the Gulf, Colorado & Santa Fe, with headquarters at Galveston, Tex., to relieve **John S. Hershey,** who will retire on September 1. **Elmer B. Johnson,** assistant general freight agent on the Atchison, Topeka & Santa Fe at San Francisco, Cal., will succeed Mr. Burton as general freight and passenger agent at Amarillo.

Mr. Hershey was born at Nebraska City, Neb., on June 30, 1868, and entered railway service on August 21, 1890, as a clerk in the local freight station of the Chicago, Burlington & Quincy at Chicago. In 1893, he went with the Elgin, Joliet & Eastern as a clerk in the auditing department and the following year he was appointed rate clerk in the general freight department. Mr. Hershey went with the Santa Fe in 1896, serving in the office of the freight traffic manager at Chicago and in January, 1902, he became general freight and passenger agent of the Gulf, Beaumont & Kansas City (now the Gulf, Colorado & Santa Fe), with headquarters at Beaumont, Tex. Five months later, he was appointed assistant general freight agent of the Gulf, Colorado & Santa Fe, with headquarters at Galveston, and in June, 1904, he was advanced to general freight agent, with the same headquarters, the position he held until his retirement.

Effective September 1, **Guy L. Goin,** general freight agent on the Atchison, Topeka & Santa Fe, with headquarters at San Francisco, Cal., will be promoted to assistant freight traffic manager, with headquarters at Los Angeles, Cal., a newly created position, and **Berne Levy,** assistant general manager of the department of highway motor transport, will be promoted to general freight agent at that point, succeeding Mr. Goin. Effective the same date, **H. P. Anewalt,** general freight agent, with headquarters at Los Angeles, will retire.

Mr. Anewalt was born at Allentown, Pa., on January 3, 1868, and entered railway service in 1885 as a junior clerk in the local freight office of the Santa Fe at Kansas City, Mo. He was later advanced successively to chief clerk in the division freight office and city freight agent at that point. In 1895, he was appointed chief clerk to the general freight and passenger agent at Prescott, Ariz., and five years later he was promoted to general freight and passenger agent at that point. Mr. Anewalt was appointed assistant general freight agent at San Francisco, Cal., in 1905, and in 1913, he was advanced to general freight agent of the Coast Lines, with headquarters at Los Angeles. On July 1, 1918, Mr. Anewalt was drafted by the United States Railroad Administration for service in Washington, D. C., and held the title of manager inland traffic, Navy department, until February, 1919. On March 1, 1919, he was appointed assistant director division of traffic by the Administration, which post he held until the discontinuance of that department in February, 1920. On March 1, 1920, upon the conclusion of federal control, he returned to the Santa Fe as general freight agent at Los Angeles.

C. P. Varney, assistant general freight agent on the Chicago, Rock Island & Pacific at St. Louis, Mo., has been promoted to general freight agent, with headquarters at Kansas City, Mo., succeeding **Earl E. Strickland,** whose promotion to assistant freight traffic manager, with headquarters at Chicago, was announced in the *Railway Age* of August 5.

C. P. Varney

Mr. Varney was born at Lamoni, Iowa, in 1885, and entered the service of the Rock Island as an agent and operator at Trenton, Mo. In the years that followed, he was transferred to various points on the system, including Little Rock, Ark., Ottumwa, Iowa, Chickasha, Okla., El Reno, Okla., St. Louis, and Kansas City. In 1937, he was advanced to assistant general freight agent at St. Louis, the position he held until his recent promotion.

MECHANICAL

A. K. Love has been appointed master mechanic of the St. Louis & Hannibal, with headquarters at Hannibal, Mo., succeeding **A. E. Brand,** who has retired after 49 years railroad service.

W. D. Hitchcock, who has retired as master mechanic of the Albuquerque division of the Atchison, Topeka & Santa Fe, with headquarters at Winslow, Ariz., as reported in the *Railway Age* of August 5, was born in Woolwich, England on July 30, 1869, and came to this country with his parents when three years old. He began his railroad career in 1888, and in February, 1890, entered the employ of the Santa Fe as a machinist at Raton, N. M. He served in this capacity at Needles, Cal., Albuquerque, N. M., and San Marcial, N.

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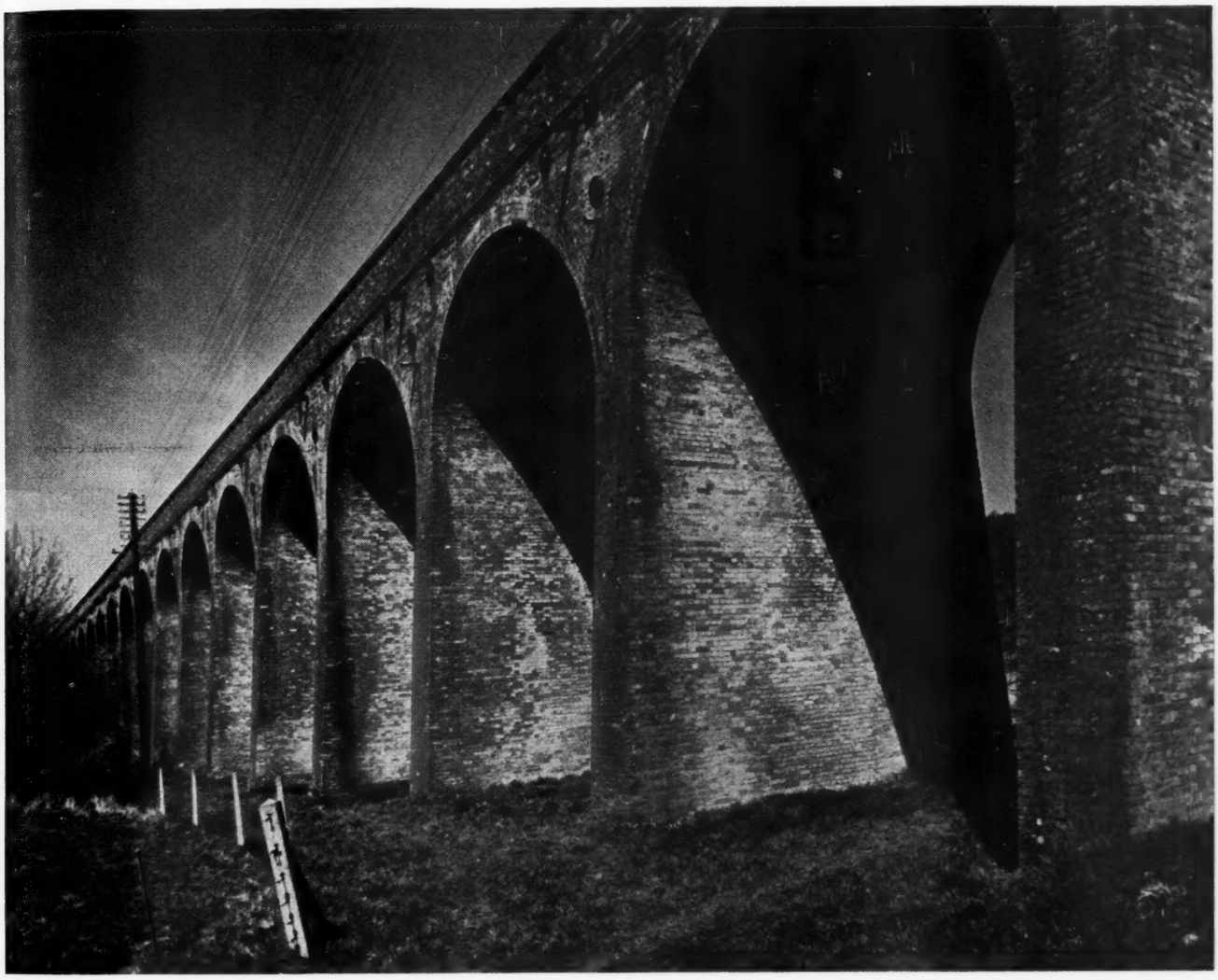
NO. 97 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



SOUTHBOROUGH VIADUCT

ENGLAND

This 738 ft. brick viaduct was opened for traffic in 1845 and is still in active service, carrying a two-track main-line near Southborough depot on the Eastern Division of the Southern Railway of England. The extreme height from ground level in the center of the valley to rail level is 58 ft. This structure, by its age and condition, provides a rare monument to the skill of the builders and the quality of materials employed in its construction. » » » The Security Sectional Arch, by reason of the economies it has effected in the successful operation of modern steam motive power, also stands as a monument. . . . A monument that the American Arch Company Engineers are constantly improving to keep pace with locomotive design.

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Refractory Specialists

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M. In November, 1902, he was promoted to roundhouse foreman at Raton, and in 1917 was promoted to master mechanic at Winslow.

ENGINEERING AND SIGNALING

R. F. Holmberg, signal construction engineer of the Denver & Rio Grande Western, has been appointed signal supervisor, with headquarters at Salt Lake City, Utah, and the position of signal construction engineer has been abolished.

William Sinclair Burnett, chief engineer of the Cleveland, Cincinnati, Chicago & St. Louis (Big Four), with headquarters at Cincinnati, Ohio, has retired be-

William Sinclair Burnett

cause of ill health and his duties have been assumed by **Paul Hamilton,** assistant chief engineer, without change of title.

Mr. Burnett was born at Montrose, Scotland on September 5, 1878, and graduated from the East of Scotland Technical College. After completing his education, Mr. Burnett came to the United States and entered railway service as a rodman on the Southern Indiana (now part of the Chicago, Milwaukee, St. Paul & Pacific), being promoted to instrumentman in 1900. In 1904, he was appointed resident engineer on the Chicago Southern (now part of the Chicago & Eastern Illinois). He entered the service of the Big Four in 1906, as a resident engineer at Mt. Carmel, Ill., going with the C. M. St. P. & P. in the same capacity two years later. In 1910, Mr. Burnett returned to the Big Four as a resident engineer and served in that capacity at Evansville, Ind., Sharonville, Ohio, and Bellefontaine, Ohio. In 1912, he was promoted to district engineer, with headquarters at Middletown, Ohio, and the following year he was advanced to division engineer maintenance of way, with headquarters at Springfield, Ohio. Later he was appointed district engineer at Springfield and in 1924, he was promoted to engineer of construction, with headquarters at Cincinnati. Mr. Burnett was further advanced to chief engineer of construction on June 1, 1925, and on January 16, 1932, he was promoted to chief engineer, the position he held until his retirement on August 1.

Homer W. Dunn, chief draftsman in the office of the signal engineer of the Coast Lines of the Atchison, Topeka & Santa Fe, has been promoted to assistant signal engineer, succeeding **William F. Price,** who was appointed signal engineer of the Gulf, Colorado & Santa Fe, as reported in the *Railway Age* of August 12. Mr. Dunn was born in Delta, Iowa, on January 29, 1892. During the summer months of his college years he was employed on signal construction work for the Union Switch & Signal Company on the Chicago, Milwaukee, St. Paul & Pacific. After graduating from the University of Arkansas in 1915, he began an apprenticeship course in the engineering department of the Union Switch & Signal Company at Swissvale, Pa., serving part of his time in signal construction on the Western Maryland. In 1916, Mr. Dunn became a draftsman in the signal engineer's office of the Coast Lines of the Santa Fe at Los Angeles, Cal., and later was promoted to chief draftsman.

OBITUARY

George L. King, who retired on January 1, 1936, as assistant secretary of the Southern Pacific after over 61 years service, died on July 26 at the age of 75.

F. P. Eyman, general agent for the Chicago & North Western at Kansas City, Mo., died suddenly at that point on July 20.

Allan P. Mackinnon, general counsel of the Boston & Maine at Boston, Mass., whose death on August 7 was reported in the *Railway Age* of August 12, was born in Brockville, Ont., Canada, on February 28, 1880. Mr. Mackinnon was graduated from Dartmouth College in 1902 and Harvard Law School in 1905, and entered the law department of the Boston & Maine shortly after being graduated from Law

Allan P. Mackinnon

School. After a series of promotions he was appointed general solicitor of the Boston & Maine in 1925. In 1930 he became head of the law department, with the title of general counsel, the position he held until his death. Mr. Mackinnon was a director of the Connecticut & Passumpsic River, the Troy Union, and various other companies affiliated with the Boston & Maine system.

Construction

GRAND TRUNK WESTERN.—A contract amounting to approximately $40,000 has been awarded Hamer Brothers, Inc., Detroit, Mich., for the removal of old masonry abutments and piers and the construction of a new concrete pile substructure under a double-track three-span deck plate girder bridge over the Thornton river near Thornton Junction, Ill.

LEHIGH VALLEY.—A contract has been given to A. S. Wikstrom, Bound Brook, N. J., for grade crossing elimination work at Grandin, N. J., to cost about $110,000. Bids will be received by the New York State Department of Public Works for grade crossing elimination work at Cheektowaga, New York, to cost about $500,000 and for similar work in the town of Alden, to cost about $100,000 in which the Lehigh Valley and other railroads are involved.

NEW YORK CENTRAL.—Contracts have been let by this road for work in New York City as follows: To James Stewart & Co., Inc., New York, for the construction of freight terminal building, driveways, sidewalks, and to the Duffy Construction Corporation, New York, for alterations and additions to Railway Express Agency, between West 32nd and West 33rd streets, 10th and 11th avenues; to Albert A. Volk Company, Inc., New York, for demolition and removal of elevator A, including boiler and engine room and chimney, north of West 59th street and 12th avenue.

PENNSYLVANIA.—A contract has been given to the James McGraw Company for building a direct connection to the Williamsport division at Enola, Pa., and a contract has been given to James Stewart & Co., Inc., New York, for new mail conveyors at the Pennsylvania Station in New York City. W. F. Tremble & Sons Co., has a contract for rebuilding Herrs Island stock yard, which was damaged by fire.

READING.—A contract has been given to Hallen Welding Service, Inc., Long Island City, N. Y., for furnishing new steelwork and repairing or renewing certain members in connection with the repairs to the Reading Terminal trainshed roof, at Philadelphia, Pa., to cost about $34,714.

THE STATEN ISLAND RAPID TRANSIT RAILWAY COMPANY (BALTIMORE & OHIO SUBSIDIARY).—A contract has been given to the Caye Construction Company, Inc., Brooklyn, N. Y., for building construction in connection with the elimination of grade crossings between Great Kills and Huguenot, Staten Island, N. Y., at a cost of about $150,000. Bids were received on August 18, for building construction at Tottenville.

TEXAS & PACIFIC and MISSOURI PACIFIC.—A contract has been awarded H. E. White, Tyler, Tex., for the construction of a joint passenger station at Longview, Tex., which will cost approximately $200,000.

Table of Operating Revenues and Expenses appears on next left-hand page

The Elesco Unit REmanufacturing Service reforges new life into old superheater units at about half the price of new units. REmanufactured units are like new internally and externally . . . good for many more years of trouble-free service.

Standardize on this dependable service . . . it is economical.

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Superheated Steam Pyrometers—American Throttles
Tangential Steam Dryers

A-1338

ELESCO

Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 136 Monthly Reports of Revenues and Expenses Representing 140 Class I steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF JUNE, 1939 AND 1938

Item	United States		Eastern District		Southern District		Western District	
	1939	1938	1939	1938	1939	1938	1939	1938
Miles of road operated at close of month	233,404	234,529	57,556	57,903	44,474	44,729	131,374	131,897
Revenues:								
Freight	$255,763,196	$222,700,971	$101,350,986	$87,591,554	$51,834,248	$43,376,427	$102,577,962	$91,732,990
Passenger	38,436,019	34,947,930	21,199,712	18,722,507	3,961,255	3,724,930	13,275,052	12,500,493
Mail	7,953,174	7,616,828	3,041,509	2,889,523	1,361,254	1,309,028	3,550,411	3,418,277
Express	5,073,510	3,876,535	2,170,710	1,385,898	882,734	527,731	2,020,066	1,962,906
All other operating revenues	14,390,836	12,938,408	6,799,521	6,240,630	1,651,458	1,485,125	5,939,857	5,212,653
Railway operating revenues	321,616,735	282,080,672	134,562,438	116,830,112	59,690,949	50,423,241	127,363,348	114,827,319
Expenses:								
Maintenance of way and structures	44,379,672	36,021,878	15,443,105	12,387,999	7,133,912	6,376,725	21,802,655	17,257,154
Maintenance of equipment	61,852,394	52,830,959	26,471,568	21,785,309	11,927,850	10,271,944	23,452,976	20,773,706
Traffic	9,156,144	8,609,928	3,324,729	3,165,404	1,687,112	1,531,856	4,144,303	3,912,668
Transportation—Rail line	112,506,800	106,984,663	49,980,254	46,645,042	18,650,590	17,774,407	43,875,956	42,565,214
Transportation—Water line	408,380	386,442	.....	.....	.....	.....	408,380	386,442
Miscellaneous operations	3,209,757	3,121,073	1,363,479	1,345,407	300,609	291,182	1,545,669	1,484,484
General	10,726,008	10,563,255	4,235,513	4,189,796	2,067,487	2,025,022	4,423,008	4,348,437
Transportation for investment—Cr.	453,496	385,792	56,749	100,901	88,428	56,916	308,319	227,975
Railway operating expenses	241,785,659	218,132,406	100,761,899	89,418,056	41,679,132	38,214,220	99,344,628	90,500,130
Net revenue from railway operations	79,831,076	63,948,266	33,800,539	27,412,056	18,011,817	12,209,021	28,018,720	24,327,189
Railway tax accruals	29,569,457	28,214,136	12,731,509	12,264,043	6,033,047	5,279,227	10,804,901	10,670,866
Railway operating income	50,261,619	35,734,130	21,069,030	15,148,013	11,978,770	6,929,794	17,213,819	13,656,323
Equipment rents—Dr. balance	8,192,484	7,580,639	3,434,304	3,226,171	711,706	439,124	4,046,474	3,915,344
Joint facility rent—Dr. balance	2,973,659	2,993,969	1,516,843	1,555,516	377,997	395,072	1,078,819	1,043,381
Net railway operating income	39,095,476	25,159,522	16,117,883	10,366,326	10,889,067	6,095,598	12,088,526	8,697,598
Ratio of expenses to revenues (per cent)	75.2	77.3	74.9	76.5	69.8	75.8	78.0	78.8
Depreciation included in operating expenses	16,805,487	16,854,764	7,361,009	7,369,852	3,326,299	3,300,813	6,118,179	6,184,099
Pay roll taxes	8,734,640	8,026,237	3,673,478	3,322,996	1,517,353	1,406,571	3,543,809	3,296,670
All other taxes	20,834,817	20,187,899	9,058,031	8,941,047	4,515,694	3,872,656	7,261,092	7,374,196

FOR SIX MONTHS ENDED WITH JUNE, 1939 AND 1938

Miles of road operated at close of month*	233,610	234,728	57,602	57,972	44,493	44,720	131,515	132,036
Revenues:								
Freight	$1,453,092,196	$1,295,734,343	$603,969,091	$517,213,328	$293,756,112	$269,471,022	$555,366,993	$509,049,993
Passenger	198,208,395	197,262,453	109,807,386	107,486,911	28,495,426	29,234,219	59,905,583	60,541,323
Mail	47,975,880	46,585,785	18,419,108	17,772,627	8,352,237	8,176,156	21,204,535	20,637,002
Express	27,859,807	22,752,692	10,805,360	7,734,012	6,774,820	5,106,301	10,279,627	9,912,379
All other operating revenues	76,990,279	73,731,767	37,851,025	36,532,701	10,059,771	9,979,884	29,079,483	27,219,182
Railway operating revenues	1,804,126,557	1,636,067,040	780,851,970	686,739,579	347,438,366	321,967,582	675,836,221	627,359,879
Expenses:								
Maintenance of way and structures	219,313,604	195,584,978	82,299,428	71,837,444	40,213,073	38,087,229	96,801,103	85,660,305
Maintenance of equipment	366,226,226	331,679,929	157,229,215	137,237,144	70,307,291	64,400,374	138,689,720	130,042,411
Traffic	52,913,426	51,656,608	19,022,471	18,718,854	10,056,575	9,863,168	23,834,380	23,074,586
Transportation—Rail line	679,273,977	668,289,372	305,878,624	294,522,071	115,914,325	115,016,272	257,481,028	258,751,029
Transportation—Water line	2,405,910	2,406,877	.....	.....	.....	.....	2,405,910	2,406,877
Miscellaneous operations	18,009,760	18,651,678	7,776,046	8,315,796	2,549,220	2,540,431	7,684,494	7,795,451
General	64,305,163	64,764,437	25,602,224	25,691,544	12,193,161	12,361,292	26,509,778	26,711,601
Transportation for investment—Cr.	1,703,902	1,439,781	151,980	281,716	331,113	244,553	1,220,809	913,512
Railway operating expenses	1,400,744,164	1,331,594,098	597,656,028	556,041,137	250,902,532	242,024,213	552,185,604	533,528,748
Net revenue from railway operations	403,382,393	304,472,942	183,195,942	130,698,442	96,535,834	79,943,369	123,650,617	93,831,131
Railway tax accruals	172,469,984	168,869,283	74,035,209	71,587,578	34,771,932	33,341,658	63,662,843	63,940,047
Railway operating income	230,912,409	135,603,659	109,160,733	59,110,864	61,763,902	46,601,711	59,987,774	29,891,084
Equipment rents—Dr. balance	47,991,608	46,638,111	20,572,353	19,329,384	4,538,198	4,736,130	22,881,057	22,572,597
Joint facility rent—Dr. balance	17,658,285	17,780,035	9,549,602	9,440,813	2,005,392	2,051,084	6,103,291	6,288,138
Net railway operating income	165,262,516	71,185,513	79,038,778	30,340,667	55,220,312	39,814,497	31,003,426	1,030,349
Ratio of expenses to revenues (per cent)	77.6	81.4	76.5	81.0	72.2	75.2	81.7	85.0
Depreciation included in operating expenses	100,949,684	100,913,543	44,112,414	44,022,422	19,958,413	19,708,800	36,878,857	37,182,321
Pay roll taxes	50,723,587	48,620,152	21,659,595	20,457,443	9,040,103	8,780,066	20,023,889	19,382,643
All other taxes	121,746,397	120,249,131	52,375,614	51,130,135	25,731,829	24,561,592	43,638,954	44,557,404

* Represents an average of the mileage reported at the close of each month within the period.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.